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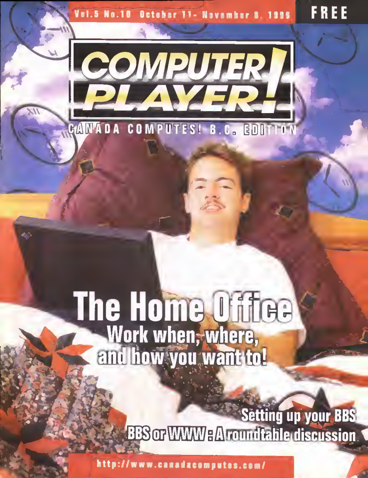

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Publisher Douglas Alder
Editor-in-Chief Mara Gulens editor@tcpon.com
Managing Editor Lara Thais King
Associate Editor Myles White, Alan Zisman
Art Director Jennifer Hanlon
Production
Yann Chan, Sherly Ho, Karin Hartwig,
Paul Van Elsberg
Controller Chris McPhie
Advertising Sales
Jamie Leighton jamie@tcp ca
Randy Chaster randy@tcp.ca
Frank Houston, frank@tcpon.com
Marsha Miller marsha@tcpon.com
Accounting Fanda Aini
Distribution Harpal Singh Khalsa

About the Cover
This month's cover was designed by Paul Van Elsberg & retouched in *Photoshop 3 0* Composition and type were created in *Adobe Illustrator 5 5* This image shot by John Narvali features Steve with an IBM ThinkPad

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Tel. (604) 688-2120 Fax (604) 688-4270

Toronto Computes!
99 Atlantic Avenue, Suite 408
Toronto, ON M6K 3J8
Tel (416) 588-6818 Fax. (416) 588-4110

Ottawa Computes!
122 Clarence Avenue, Suite 203
Ottawa, Ontario K1N 5P6
Tel (613) 789-6431 Fax (613) 789-6433

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http //www.canadacomputes com/

Letter from the editor

The cell phone in the sink

The morning I found my husband's cell phone in the bath room sink I knew the freedom-to-work when-and-where thing had gone a bit too far

He later explained that he needed to be able to extend a dripping-wet hand from the shower to catch any urgent calls Fair enough But it terrified me to think that work technology had so thoroughly penetrated the home environment that even a morning shower was no longer sacred.

For about a week I griped about the cell phone-in-the-sink phenomonen—and all that it implied After I had calmed down however I came back around to seeing the positive side of our new way of working.

Once you get what you want...

Whether working at home is your heaven or your hell depends in part on what stage in your work-at home life you happen to be end how you manage your new-found freedom

After several years of freelancing I had definitely lost sight of the benefits and longed to be back in an office setting with a set agenda. Now that I m back in that setting, however I find this my work-from-home days are extremely productive and thoroughly enjoyable because I m out of the office setting and I can set my own schedule

In fact, I m writing this editorial from my home-office computer On the desk beside it sits a printer, a phone a modem and a Zip drive I have access to the Net and the *Canada Computes!* internal office network so that I can easily contact my colleagues by either phone or e-mail

That s not to say that setting up all this equipment is cheap or that meeting face-to-face is not important But it does show how easy working remotely has become

This issue of *CP!CC!* is all about the SOHO (small office/home office) scene. Read on to find out more about what hardware and software choices you need to make how to set up your home office for efficiency and what a recent SOHO survey revealed Managing editor Lara Thais King has compiled a list of SOHO tips from some of our writers that further reveals the ups and downs of working from home

All the comforts of home

While my 50-minute commute to the *CC!* offices does give me time to peruse the *Globe & Mail* it really is much more enjoyable to read the paper at home with a cup of freshly brewed raspberry-chocolate coffee Moreover my work-at-home day starts whenever I want it to—because I *m* already *here* I don t have to get *there*

At the "real" office the phone rings constantly there are constant minor crises to deal with and people walk in and out of my office with questions When I work from home I control my own time If I haven't eaten breakfast yet and it s 3:00 PM that s okay If it's 11 00 PM and I m still working that s okay As long as I get the work done—and as long as I leave myself sufficient time to play.

As a matter of fact, a recent report by Statistics Canada shows that the standard 40-hour work week is now the norm for only half of working Canadians. Apparently a much higher proportion of people are spending less time on the job and more people are working longer hours, too Self-employed individuals are more than twice as likely to work long hours as paid employees but they are also more likely to work fewer hours.

Caught in a trap?

One of the biggest problems with these relatively new methods of working from home could be the problem of feeling that you're not working, or that you re not working enough After all you're at home! Traditionally home is an escape *from* work.

Case in point the other day seeing as it was sunny out my spouse held a conference call on the back porch. He then resumed working in his basement cave Later that night he was still working—apparently the effect of direct sunlight made him feel as if he d taken time off!

Some days I start and finish working at the same hour (as in 8 00 AM-8 00 PM or 11 00 AM-11 00 PM) Since I m not working in the "real" office (the one for which you have to leave home) I feel as if I m just hacking away for fun This crazy thinking shows how far we still have to go to really integrate the new technologies into our lives.

Still, the change is well underway IBM Canada for example has outlined new flexible work arrangements where work begins or ends after "normal" start and stop times the standard work week is altered or working from home becomes a viable option Now that's what I call adapting to change!

Enjoy the issue!
Mara Gulens, Editor-in-Chief
editor@tcpon com

your letters please

Letters on issues raised in the paper or general computer topics are welcome Please be brief Only those with names and a mail or email-mail addresses will be published Letters may be edited for space or content.

The Editor
Computer Player!
Canada Computes!
BC Edition
425 Carrall Street
Suite 503
Vancouver BC
V6B 6E3
cpletters@tcpon com

A letter of console-ation?

Just giving my two bits on *the* article "PC vs. console The gamer's lowdown" by Marc Saltzman in September edition

A good piece, though I wished it a bit longer and more in-depth especially with the all the talk in the gaming world about the Sony/Sega/Nintendo (soon to be) wars You are very right that in most cases it will come down to cost

Like you wrote-if one is into any sort of role-playing, or simulation games, then the PC has (and I think always will) have *the* market hands down, but for any sort of 3-D or action games then it is the consoles that win there Just look at Donkey Kong Country on the Super Nintendo (SNES)

I hope to see another article in the near future to retackle the issue when the Nintendo 64 is out with some game selection

Keep up the good work!

Adam Waldner

Staying wired

Congratulations on the new merged hybrid

I found your personal follow-up to *the* piece on wilderness laptops (logtops ?) very interesting particularly the part about draining the resources of your car battery Now in a real backwoods laptop this would not be a concern. I know of at least one company Keep It Simple Systems (KISS) in Montana http //wildwestweb com/public/KISS_Home_Main_html) that produces solar panels for laptops, and I'm sure there are others.

This technology married with developments in wireless modems would mean that you could receive e-mail or surf *the* web while camping by an alpine lake miles away from the nearest AC electrical outlet.

Ken Binns

I have two questions...

1/ How do they get the email address when you re Web browsing?

2/ How do I adjust my browser so they can't get it?

Ian Simpson, West Vancouver, B.C

Dear Mr Simpson.

I ll try to answer both questions at once. As I mentioned in the article this information can be retrieved because it is part of the HTTPD protocol, which handles communications between the Web server at your Internet Service Provider and the one you are connecting to. Everytime you go to a Web site information about where you come from, the browser you are using the types of files your system can accept and even the last place you visited is told to the Web server you are visiting In some cases (depending on the browser you use) it also passes on your email address. This is a critical part of the HTTPD protocol — without it the Web server would not know where to

BC's community agencies GO ONLINE

• • By JUNE CAMPBELL • •

British Columbia's community agencies and not-for-profit societies will soon be surfing the information highway with the best of the Net junkies!

Thanks to the BC Ministry of Women's Equality's Community Internet Training Program approximately 145 groups across the province will receive the support they need to take full advantage of all the Internet has to offer Agencies who provide services or support to four identified groups (women aboriginals the disabled and immigrants and visible minorities) will be eligible for assistance in this two-stage project

In the first stage qualified groups will be provided with the organizational support necessary to acquire Internet skills In the second stage eligible agencies can apply for grants of up to $2,500 to cover expenses associated with going online

Setting the stage

Following a call for RFPs (Requests for Proposals) the contract to develop the first stage of the project was awarded to the successful candidates: Vancouver based JR Publishing in affiliation with the Canadian Women's Internet Association. Currently under development Stage One includes the production of an interactive self teaching tool by which agency personnel will learn to use such Internet components as e-mail WWW FTP gopher mailing lists and more Lessons will likewise be provided regarding the selection of an ISP domain names, designing a Web site and HTML coding

Also in the first stage an online resource directory and Web site are being developed to serve the needs of the four target groups. Representatives of appropriate agencies and groups have been surveyed and have offered suggestions and recommendations for content and design of the Web sites.

Keeping in mind the special needs of these groups, both the interactive training tool and the Web sites are being designed for users with modem speeds of 14.4 Kpbs or lower, and may be viewed with a range of browsers including *Mosaic* and earlier versions of *Netscape* and *Microsoft Explorer*

Accessibility issues are a developmental priority Both the learning tool and the Web sites will be accessible to visitors using screen readers and other devices for the disabled

Why go online?

The identified target groups are known to experience barriers to accessing the Internet How will these groups benefit by becoming wired? Heather Gordon of the Sunshine Coast Women's Centre expresses it succinctly "This project is valuable because it provides a non-technical introduction for those groups most intimidated by going online Internet literacy will be as vital a development tool in the next century as reading was in this century We owe it to ourselves and those on whose behalf we work to develop the necessary skills"

Stage One is currently nearing completion The timeline for Stage Two is not yet announced.

June Campbell is the owner of Nightcats Multimedia Productions You can reach her by e-mail at june_Campbell@mindlink.bc.ca or by phoning (604) 980-3219 during business hours. ◆

Coming up next issue

Buying used hardware

Upgrading on a tight budget.

Presentation Software

Making dynamic presentations with ease.

Intranets

What they are all about.

Letters...

continued from page 6

send Web pages to. There is simply no way around this.

Using this information, Web masters can write programs to keep track of the people who visit their Web server This is not necessarily a bad thing and many Web masters use this data to find out the types of browsers people are using, or from which countries people are visiting their site from. It can also be used by Web marketer looking for potential customers — and they know you have visited their site It is worth keeping this in mind when travelling around the info superhighway when you visit a site you always leave a trace of your passing

For a very good example of the type of information you are telling the Web server you are visiting, check out the "What we know about you" Web site at http://www.patents.com/status.cgi. This will give you an idea of exactly what sort of information you would be passing along to a Web master every time you visit a Web site.

Oops

Unfortunately, the URL for On Trac Inc. in September's "Spinning Web into gold. Making money on the Internet" article was incorrect. The correct Web address should have read

http://www.ontrac.yorku.ca/

Our apologies to any surfers lost in the Net. ◆

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PRIVACY prevails online

• • By CHRISTOPHER GULY • •

If you live in Victoria, forget trying to find out how much your neighbour's house is worth through a Net search.

On September 25, the city's mayor Bob Cross closed a Web site that listed ownership and assessment values for any Victoria address after British Columbia's Information and Privacy commissioner ordered an investigation into the service.

The folks behind the site, which was unveiled in early September, saw it as a way of creating a "virtual city hall" where Victorians could access public records online. Privacy Commissioner David Flaherty saw it more like an unnecessary invasion of privacy.

Although tax-assessment rolls are typically used in pricing real estate or comparing property taxes, Flaherty worried that they could also feed the urges of stalkers or debt collectors.

In addition to searching by street or specific address, users could also locate a person on the online service. "It's a question at the end of the day of balancing competing values," Flaherty told the *Globe and Mail*.

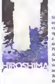
The same information City of Victoria officials hoped to make available through the Net is already available over the telephone, however, through a service called BC Online.

The catch is that only one search is allowed at any time, an $8 fee is imposed per property and you have to identify yourself when seeking information.

Cloaking device needed?

Nevertheless, Flaherty, who claims he found former BC premier Mike Harcourt's name included on BC Online, is considering whether to place a cloak of anonymity on the service. Users would be able to obtain property values without having the identity of the owners revealed.

In the meantime, some of the people responsible for the more than 10 500 hits to the ill-fated Victoria Net site will now have to either phone in their requests or come down to city hall personally to get the information. The site, according to Flaherty, is one of the results of automation that he says "permits an existing data base to be used in new ways that were unintended by the people who designed the original system." ◆



ALDERGROVE
3-D ILLUSTRATOR A "MASTER"

• • By STEVE BAIN • •

Six years ago, commercial photographer Gary Beale took up 3-D illustration as a hobby. Now he's an illustrator for B-Plus Studios in Aldergrove, BC, and he's being internationally recognized as a master at it.

Beale is a winner in this year's running of the Modern Masters of 3-D Art and Design contest—the theme of which was "Characters of Your Imagination"—conducted annually by Fractal Design, makers of 3-D rendering software *Raydream Designer*. Each year, the company accepts hundreds of entries from around the world. Judging is done by a panel of industry experts ranging from fine artists and authors to creative directors of large companies.

Try, try again

"I've submitted entries to this particular contest for a couple of years now," says Beale, "but this is the first time I've won anything." Beale's winning subject was an image of paper lanterns floating on water entitled "Hiroshima," commemorating the ceremony held at an annual event in Japan called Hiroshima Day.

"It's basically a simple theme. I created a bunch of differently coloured and cubed objects with some spotlights attached inside to simulate a glow. Then I placed them on a surface and added a wavy reflection for water. The scene took roughly 3 hours to render, which is relatively fast for most 3-D illustrations. Some of my illustrations have taken as long as 36 hours to render."

The prize for his efforts is a new Pentium computer system, which he says comes at a good time. "I've been doing most of my work on a Pentium 90," he says, "and I've been eager to move up over the 100 MHz mark. Raytracing takes quite a bit of CPU overhead. I tried using programs like *CorelDraw* in the past, but I wasn't really happy with the results. I used *Raydream Designer 3* because I wanted to get the visual effect seen in the image and I like the realistic effect of raytracing."

Fractal Design, like many software illustration program developers, views these contests as a way of promoting the talent of artists using their software, in turn promoting their products. More and more software companies are realizing that public contests are an excellent marketing tool and a most effective way of raising their public profile. The largest contest held in the computer software industry is hosted by Ottawa-based Corel Corporation, now in its seventh year, which boasts cash and prizes of more than $3 million and attracts entries from around the world.

Gary Beale can be reached at B-Plus Studios at (604) 874-988. ◆

Canadian software will help FBI free hostages

• • By CHRISTOPHER GULY • •

The FBI may soon be able to use computers to improve the way it handles hostage-taking situations.

By November, 56 FBI offices in the United States will be equipped with *Civer-Psych*, a software program designed by a husband-and-wife team from Montreal, Jean Kelly and Walter Keirstead. The two started their company Civerex Systems Inc , out of their basement two years ago

Originally, their mission was to create a package for mental-health workers, using a modified version of the *Diagnostic and Statistical Manual of Mental Health Disorders, 1994*, or DSM-IV Then FBI supervisor special-agent Leon Schenck got tangled in the Waco crisis in 1994 Schenck happened upon Civerex through an international software search. Kelly and Keirstead got $140,000 for the FBI deal and the US law-enforcement agency ended up with a tool to assist them in figuring out the personality profile of hostage takers.

Instead of inputting systems, FBI agents enter behaviour patterns and rather than getting a medication or treatment plan, they get an "incident strategy" to help them resolve the crisis.

The FBI had a copy of *Civer-Psych* on hand at the Olympics in Atlanta, just in case. ◆

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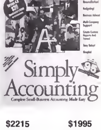

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Vancouver company bucking the Shockwave

Vancouver-based Totally Hip Software Inc is going after a piece of the increasingly lucrative Web-animation market with last month's launch of their *WebPainter 1.0* Web-site creation program.

Currently shipping only for the Mac platform, the software allows users to produce animation and graphics for Web pages in GIF, QuickTime, Java, and *Sizzler* file formats. A Windows version is currently in development, with a planned fall release.

Totally Hip aims to compete directly with Macromedia's *Director Shockwave* software, which is quickly becoming the Web-animation tool of choice for many site designers.

During their initial public beta, more than 100 000 copies of the prerelease versions of *WebPainter* were downloaded from the company's Web site at http://www.totallyhip.com/

A three-month introductory version is priced at roughly $65 and is now available for downloading. The full retail version sells for approximately $135.

Company CEO Randall McCallum says the strengths of the software are in ease of use and compatibility with other site-design applications including *Adobe Pagemill*, *Claris HomePage* and *Netscape Navigator Gold*.

Totally Hip Software also develops other multimedia and Web-based software including *Object Scenario* (a joint development with the Province of BC, the Science Council of BC and BCIT) and a media player called *Sizzler*.

Vancity goes for virtual gold

Vancity, who seem to be constantly proving themselves to be the country's most innovative and forward-thinking credit union, have taken steps toward establishing Canada's first "branchless" national bank.

Last month, they applied to rename their newly-formed Citizens Trust online-banking subsidiary Citizen's Bank of Canada, which is expected to open early next year. As with Citizens Trust, the new bank will handle all transactions via computer through online access and automated tellers. Along with regular savings and chequing services, this new virtual bank will offer term deposits, mortgage lending, retirement-savings plans, and utility bill payments. The new bank will be headed by Citizens Trust CEO Linda Crompton.

iStar grows too far, too fast

One of Canada's largest Internet service providers has apparently grown too quickly for its own good. Ontario-based iStar, parent company of several Vancouver ISPs including Mindlink and Wimsey, has reported a net loss of $20.4 million for its first year of operation, ended May 31, on revenues of $19.4 million.

iStar currently boasts an online subscribership of more than 60 000, with most of their revenue stemming from commercial companies as opposed to individual users.

But iStar's publicly traded shares are on the upswing. Late August, the company announced an agreement with Microsoft to implement direct access to their network through Microsoft's Windows 95 Internet referral server program. Users of the new operating system, which is now used by more than 40 million worldwide, will be able to connect to services offered by iStar without having to actually contact them directly.

Growing fast

Consulting firm Arthur Anderson recently released findings of a survey to determine BC's fastest-growing companies. Among the high-tech companies listed was Vancouver software developer GDT Softworks Inc., manufacturers of Macintosh printer drivers.

In 1995 GDT's revenues were more than $8 million. The company has been in business since 1984 and have established themselves as the dominant print and connectivity-solution providers for the Macintosh platform, claiming more than 95 per cent of their market.

GDT has made the BC list three years running, and has also been ranked among the top 100 fastest growing companies in Canada. The company is lead by recently appointed president Michael Blackstock.

Also making the BC list was The Future Shop Ltd., telecommunications manufacturer Glenayre Electronics, Dynapro Systems Inc (makers of touch screen technology) and software developer Prologic Corp.

Sympatico NetLife hits the newstands

Telemedia Communications Inc, publishers of *Vancouver Magazine*, recently launched the premier issue of *Sympatico NetLife*, one of the first magazines in Canada devoted to the Internet. The monthly publication is a joint effort by Telemedia and Sympatico Internet service.

The launch issue is expected to have a circulation of 100 000 copies and will retail on newsstands for roughly $3. The target audience is said to be "second-wave" Internet users, and it will be marketed in four regional areas.

Although Telemedia is based in Toronto, editor Paul Sullivan will act as the Vancouver editor-in-chief, managing a team of editorial contributors from across the country.

Steve Bain is a writer in Vancouver, Canada. Send news or comments to 72623.1233@compuserve.com or Steve@helix.net ◆

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Who will *police* cyberspace?

Most of Ken Anderson's time is spent either thinking about computer viruses, such as Concept (which infects *Microsoft Word* documents and templates written in WordBasic macro coding language) or about the plethora of computer systems stolen from his company, Altel Corporation

• • By CHRISTOPHER GULY • •

As vice president of information services Anderson has spent more time than he cares to admit conjuring new and innovative security measures to block cyber-thieves.

"We have all sorts of checks and balances in place, such as firewalls and encryption devices," he says. "But for us, like a lot of other high-tech businesses, we are wasting a lot of money on security measures, which is really ending up damaging our customer connections."

Anderson would like to make a 911 call to police, but doubts he would find much assistance. "I don't believe there exists a relationship between the police and industry that is focused in areas that need to be worked on collaboratively."

Looking to listen in

Police forces from across Canada agree—from a different perspective. At their 91st annual convention held in late August, the Canadian Association of Chiefs of Police spent the lion's share of their four-day meeting in Ottawa wrestling with policing crime in cyberspace.

Anderson was among those who addressed the conference. But while he spoke of the business trend turning towards encryption and network security programs, police chiefs fretted how potentially troublesome decrypting messages could become for them. They, like the Federal Bureau of Investigation in the United States, would like to obtain a cyber-tapping device to penetrate potential terrorist activity or help them with criminal investigations.

But the Clinton administration's voluntary encryption standard, the Clipper Chip, which would have sanctioned

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Who will police cyberspace ...

continued from page 10

decryption techniques for the FBI and the National Security Agency was vehemently opposed by both business and privacy advocates in Canada, encryption is free to be used by anyone.

Deciphering e-mail and other computer messages, in fact, could be a long time coming in this country

Industry Canada s Information Highway Advisory Council has advocated the use of public-key cryptography and has championed the need to protect privacy By 1997 six federal departments will use a $7 million public key system developed by Nortel's Entrust and the Communications Security Establishment.

As a result such groups as the Canadian Security Intelligence Service have done what they could to avoid becoming hamstrung by the unavailability of decryption techniques

"What is of paramount importance to us is that groups or companies implement very sound security procedures and provide people who access computer systems with appropriate levels of security clearance" says CSIS spokesperson Gaetan Blais.

No borders here

But empowering citizenry to police their own cyber-traffic only goes so far explains Ontario Provincial Police Commissioner Thomas O Grady "What we need is some agreement with Interpol or the International Association of Chiefs of Police to help police a medium that has no geographical borders" he says. O Grady also serves as president of the Canadian Association of Chiefs of Police

Meanwhile the Ontario government is tapping into computer technology to improve its justice system Ontario Solicitor General Bob Runciman told delegates at the police chiefs conference about a recently announced, four-year project designed to reduce the amount of paperwork choking his and Attorney General Charles Harnick s departments

The two ministries are seeking a private-sector partner to design and implement a computerised system that would create links between the Crown attorney's office and police services to allow for the electronic transmission of Crown briefs and permit electronic disclosure to defense counsel create links between police Crown counsels the Victim/Witness Assistance Program the correctional system and the Ontario parole board to offer more assistance to victims of and witnesses to crime and develop methods to assist the courts with legal documents intake case management court staffing trail coordination document management, and court reporting

"Right now our justice system takes up too much staff time and buries us in paper work," says Runciman "Police prosecutors, and correctional officers currently recreate the same files as many as six to nine times because our information systems simply can t talk to each other Prosecutors will tell you that they don t even have access to a computer right now" ◆

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Notes from the work-at-home front

Photo by Christopher Guly

Christopher Guly seeks final editorial sign-off from associate, Montgomery Guly.

• • Compiled by LARA THAIS KING • •

Are you a WAHer (work at homer), or trying to establish your own SOHO (small office/home office)?

Not surprisingly, the trend to be your own boss—or at least avoid your boss as much as possible—holds great appeal to many. And why not, if you can get the work done, but leave the commute and restrictions of an office atmosphere behind?

Many of *TCI*'s writers belong to this new generation of WAHers, so we asked some of them to offer us a few words of wisdom on their experiences.

Here's what they had to say:

Ten SOHO commandments

1. Be mean. Don't buy anything unless you really need it.
2. Don't miss phone calls. Get a coffee maker in your office.
3. Have a separate fax machine and phone line.
4. Don't buy anything less than a 33.6 Kbps modem.
5. Use a dot-matrix printer for proofing rather than a more expensive ink jet.
6. Have good accounting and contact-database programs.
7. Get a monitor with nothing less than 0.26 mm resolution. Your eyes will thank you.
8. Find a reliable Internet service provider.
9. Acquire *Canasic Phone* to contact customers, trade sources, and so on.
10. Back up files frequently and use your spell checker.

Lee Lester

Communication technology is key

When it comes to your home office telephone, callers should never hear a busy signal. Use Call Answer to take messages while on the phone. If you are afraid of missing an important call while on the phone, try Visual Call Waiting. It lets you see, on your phone's LCD display, the name and number of the caller.

You can then answer the call or let it go to Call Answer.

I'd also recommend that anybody running a home-based business get an e-mail address. E-mail can supplement other com-

continued on page 13

SOHO setups: Some basic considerations

The economy is changing. Anybody who has been downsized knows that. If you find yourself out of a job, your options seem to be to go begging for another or create your own. More Canadians are opting for the latter and setting up home-based businesses.

• • By PAUL LIMA • •

Selfemployment has created 75 per cent of the net gain in employment between 1990 and 1995 says Andrew Jackson, senior economist with the Canadian Labour Congress.

A national survey of Canadian home-based entrepreneurs conducted by Elizabeth Harris (104033.1554@compuserve.com), who runs ABACO Communications and publishes *Head Office At Home* magazine from her Markham Ontario home office found the typical home-based entrepreneur was between the ages of 31 and 50, had a university education, had been in business for up to three years and used their own finances to start their business. And according to a Canadian Federation of Independent Business study 40 per cent of small businesses in Canada are operated by women.

Cutting out the middle

The home office trend began in earnest with the recession of the early 1980s says Harris. It has continued through the current recession—one that has seen numerous professionals, middle managers, and executives displaced, downsized, and otherwise tossed out of corporate offices across Canada.

"Those with entrepreneurial spirit decided that the job security within large corporations just wasn't there and are now making a go of it on their own," says Harris.

The vast majority of home-based businesses are service-oriented and rely on technology to enable them to work productively and communicate effectively with clients and suppliers. But most people who set up home offices do not have much money to invest in their business. So growing slowly on an as-needed basis rather than investing your life's savings in technology makes sense.

Besides technology there are many factors to consider when setting up your home-based business. For a few hundred dollars you can plunk an inexpensive desk and chair from The Office Place or Business Depot in one corner of the family room and call it your home office. But furnishing and decorating a space dedicated to a full-time business can be costly—especially if you want an organized, efficient, ergonomically correct environment that projects a professional image to clients.

Looks count

Lawyers, stock brokers, or other professionals who want to emulate a costly corporate look are more inclined to invest $6 000 in a cherry or mahogany double-pedestal desk with a 6 foot by 3 foot leather top, two to four box drawers, two file drawers and a smaller centre drawer for their fine pens and paper clips. But a freelance writer (like me) who spends most of his or her time on the phone or at the PC and who sees clients infrequently can get away with a much more casual look.

Deciding how to furnish your office depends on the type of business you're operating, client traffic, space available, file and product storage space required, and degree of privacy needed.

Analyze your space before setting up the office. Your analysis should include planning for the flow of people, positioning of your desk and chair, movement from desk to files, computer and phone, placement of electrical outlets and telephone jacks and other considerations pertinent to your business.

Insuring the home office

With so many things to consider when running a home-based business—cash flow, marketing, sales, call-backs, production deadlines, filing—it's no wonder home-business owners often think about security and insurance last, if at all. If disaster strikes, however, a lack of insurance coverage or inadequate security systems might spell disaster for your business.

When it comes to protecting themselves against break-ins, fires, gas leaks, or damage from floods or furnace failure during a deep freeze, most home-business owners seem unprepared to practise prevention.

"My house is insured if anything happens" is an all too common attitude. If you work at home for a corporation, company insurance policies may cover you and your office. But if you run a home business, "your business is not covered under your home (or apartment) policy," according to Jim Lewis, president of CGL Insurance in Etobicoke.

To insure your business against theft, fire, or other liabilities, you'll need to add a business rider to your home owner's policy. A rider can cost about $75 per year, but not all insurance companies offer home-based business riders because the home office concept is still new and insurance companies haven't caught up yet.

Royal Insurance of Canada and Economical Insurance issue riders to home policies and last January Zurich Insurance launched @homebusiness, a stand-alone insurance policy designed exclusively for consultants who run their businesses from home in Ontario.

According to a Zurich spokesperson, an @homebusiness policy insures computers, fax machines, phones, photocopiers, business software and other home office equipment. It can also cover business liability for bodily injury, property damage, tenants legal liability, advertising liability and personal injury, fire and other calamities. Coverage even travels with the business, insuring equipment taken on the road.

Alarming!

Since an ounce of prevention is worth a pound of cure, you should protect your business assets with more than insurance. Consider a security system monitored by an agency that will call for assistance if a break-in, fire or flood is detected.

Not only will you save 10 or 15 per cent on your insurance premiums, but you may save yourself the aggravation of replacing stolen or damaged product, equipment or data.

While most homeowners protect first-floor doors and windows against intrusion, "second-floor protection can be just as important, because more thieves are breaking in from the second floor to avoid first-floor alarms," says Sean Baghi, president of Baghi Security and Electronic Surveillance Inc. in North York.

Home alarms range from $300 to $900 for an installed system plus $20 to $30 a month in monitoring fees. And while you're busy insuring and securing your home office, don't forget to secure your computer equipment and back up your data. To determine if your computer needs protection, ask what would happen if your hard drive crashed right now. Would you suffer financial or productivity losses? If so, back up your data, secure and insure your system.

There's more—much more—involved with running a home-based business, such as registering your business, marketing and selling, producing your product, managing the books and cash flow, and collecting GST. While it can seem overwhelming, if you take it step by step it will all start to feel quite natural. You may soon begin to wonder why anybody would ever choose to work for a boss. ◆

Notes from the work at home front ...

continued from page 12

munication technologies and is becoming an important way to send and receive electronic brochures, quotes, answers to questions, and even the end product (if it is information, images, or software that can be transmitted electronically)

Paul Lima

I scream, you scream?

My original list of critical home-office items included such predictable components as the fastest computer, the biggest hard drive, the best software, the most efficient voice-mail system, and so on. However, after Paul Lima told me he can, while remaining seated, roll from his office to his kitchen and indulge in a heaping bowl of ice cream, I was forced to revise my list. Subsequently, I now believe the most critical items for the SOHO are a chair with wheels, a plentiful supply of ice cream, and extra wide doors.

S.J. Ross

SOHO pros and cons

I've had an office in my home for nearly 30 years and have worked out of it exclusively for the past 15 years. There are both pros and cons

Pros

- No contact with crabby supervisors
- Work (or not) when it suits you—even in the middle of the night
- No rent for office space
- More time for family and friends
- A fridge right down the hall—Reduce lunch expenses

Cons

- If the boss is a jerk, you can be in real trouble, 'cause you can't get away from yourself, working by yourself can also be lonely
- You don't get paid if you don't work
- Some of your living space has to go or be shared and "do not disturb" signs don't always work
- Friends and family may think it's okay to assign you errands during your working time or drop in for coffee and a chat when you have a deadline
- The fridge can be a distraction to break from your work, potentially devastating effects on your waistline

Myles White

Push the technology budget

When you're planning your office, buy the best technology you can afford—and then some. Go for the fastest modem, the best hard drive, the latest telephony options. Don't give in *entirely* to techno-lust, but push the technology budget as

continued on page 14

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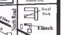

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Notes from the work-at-home ...

continued from page 13

far as it will go If you don't, you'll find yourself looking at upgrading (hardware, service, or access) six months down the road

Besides now that you're working at home, you won't need to buy as many clothes, will you?

Alan Thwaits

Out there, on my own

I love the fact that I can pick and choose my (freelance journalism) projects Setting my own pace I usually work in my favourite jumbo t-shirt that I wouldn't be caught dead wearing out of the house, never mind in an office!

But it's a solitary life So when asked for advice, I always say network your buns off!

But even if you join professional associations and clubs, it's still a competitive business It's awkward when your friends are vying for the same assignments! It's great, though, when egos are out of the way, and we can commiserate over our failures, and celebrate our successes together

Joyce Singer

Good news and bad news

The good news when you work at home you can set your own hours, and no one looks over your shoulder to see if you're working

The bad news same deal

You can sleep until noon and you won't get fired Take a three-hour lunch then play Solitaire all afternoon on the computer if you want. Why not? There are no rules in the home office unless you make them

After a while, though, you'll discover that you have to make some rules for yourself if you want to have rent money at the end of the month If your job takes eight hours a day to do, you can't get it done working from noon until 5 00

If you're not a "self starter," you may need some structure to help you stay on track. Plan your work week in advance, and stick to that plan as much as possible It's okay to sleep until noon as long as you work until 8 00 PM

Sandy McMurray

Answer the phone, Monty

Working out of my home for me, means that I never have to worry about office politics, making fashion faux pas, or worrying about overextending my lunch break.

But all of that sounds more idyllic than it really is Thanks to phones, faxes, and e-mail, office politics from editors and clients still wind their indirect way to me (notwithstanding the daily battle for turf and attention involving Montgomery, the American cocker spaniel, and his feline brothers, Wolfgang and Fitzgerald), I still have to wash the pyjamas I wear when I write, and, what lunch break?

Christopher Guly ◆

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The future of the BBS

A roundtable discussion

Compiled by
MARA GULENS

On a rainy afternoon in September four of us met at the Academy of Spherical Arts, just around the corner from the Toronto *Computes!* Offices, to discuss BBSs (bulletin board systems). Sipping Coca Cola in the renovated warehouse full of modern art, an ecclectic mix of furniture and billiard tables, the main question at hand was whether the WWW phenomenon is wiping BBSs out.

Brandi Jasmine used to be a sysop for Computerlink BBS. Her personal interest in spirituality and astrology has led her to create her own "virtual BBS," a set of Internet mailing lists with over 2,000 members, on the World Wide Web. She can be reached at jasmine@idirect.com, her Web site is located at http://web.idirect.com/~bjasmine/

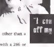
Alan Thwaits ran his own own hobbynet BBS (Praxis BBS) for a number of years before shifting his energies to his Web site (http://gutenberg.com/~praxis/). He also builds (and co-sysops) BBSs for businesses, and runs Internet-based discussion groups (AKA mailing lists or listservs) on business, computing, and cycling topics.

Mark Bryan started BBSing in 1982. He currently runs the "Online Love" BBS, which has 11 lines and 1,500 users (and growing). He also takes care of the *TC!* BBS list.

Mara Gulens is the editor of *Toronto Computes!*

MG: One of the main complaints we hear from BBSers is that the Internet lacks a sense of community.

BJ: I think a lot of the resistance comes from people with older computers. One fellow said "I'm not interested in upgrading and I'm not interested in learning anything new. Text works fine for me."



MB: I don't think you need much of a hardware change to get on the Internet other than a fast modem.

BJ: If you're stuck with a 286 or an XT and a 2400 baud modem, there's no way you're going to be able to get a SLIP connection. Even if you have Windows on a 286 and lots of RAM it's extremely slow.

AT: But you can call your local, friendly community-based BBS and have an e-mail address! That allows people who don't want or cannot afford fancy equipment to connect to part of the Internet.

BJ: It's really sexy to talk about the World Wide Web but 90 per cent of the people who are on the Internet, and 90 per cent of what they are using it for is strictly e-mail.

The mailing list—that's the heart and soul of it. In a sense it developed out of the culture of BBSs. BBS stands for bulletin board and that's exactly what people are doing—posting messages on these services. I don't see BBSs dying so much as being absorbed by the Internet.

MB: I just finished the *Toronto Computes!* list for the last year. One hundred and fifty of 300 boards that have been started in the last year are dead, versus boards that have been around for five years or more—only 10 per cent have gone. Sysops say they can't afford it anymore, nobody's calling, the Internet ate them.

"It's really sexy to talk about the World Wide Web..."

Brandi

AT: It's shakedown time. I don't think it's so much that BBSs are being absorbed by the Internet.

MB: It's weeding out the crud.

AT: Yes. The BBSs will always be, to their glory and credit, something that if you're 15 years old and you have an interest in and you have a computer you can create the beginnings of a community. You can run it for a while and let it go.

BJ: There is this illusion of community but there isn't really the commitment. It's a Catch-22. You need a leader, but the Internet and the BBS culture is anarchistic. They resent leaders, while at the same time they need them. That leads to political shifts within the community that break them up.

"I can kick your butt off my board."

Mark

Benevolent megalomania?

MB. Some of the BBSs I'm on, the sysop sticks the name "God" in where it says name and address.

BJ: It's his little fiefdom!

AT: That's one of the reasons for being a sysop. "This is *my* world!"

MB. I run my board, I am the god, but I don't push it. I don't get involved in my user's fights or love triangles.

BJ: That was my mistake—I did, and I'll never do it again.

MB: You take a big step back. You could run your board into the ground in three months if you start jumping in and messing about.

AT: BBS communities are fluid, that's probaby because the definition of community changes. If it's geographical, you're stuck with your neighbours. SOHO CAN, which is the list I run for self employed people, is a community that will come and go because it doesn't have to stay in one place.

BJ: BBSs are a very similar dynamic. When I hear people saying that BBSs are dying—I don't buy that. I just see it as transmuting along with the technology.

MG: But all these people that are getting on to the Internet. Is that why they feel the Net isn't everything it's chalked up to be? Because they're looking in the wrong place?

AT: The difference between BBSs and the Internet is partly physical. On a BBS I can go to a place: it's got a name I know, it's centred in Toronto, it's got a phone number I go to it.

"This is *my* world!"

Alan

BJ: Even though you haven't actually left your seat!

AT: Your local BBS is like a friend's house. You know the address, you go to the front door you knock on it, you give the password, and your friend opens the door and says "there's a room there, have a good time, hassle me and you're out."

BJ: On the Internet, it's like going to a another country. You're stepping out of the airport and wondering "where do I go?"

MB: Does anybody here speak English?

Mara

AT: The in-between step is online services: they're like a department store. I will pay Compuserve to go to the ground floor and look at stuff. I will pay for downloads, for extra access for a private room upstairs.

Mailing lists and BBSs and some Web sites —if they are built well—offer you a home in the midst of that huge bit of cyberspace.

BJ: On the Internet, no one will hear if you call for help. With a BBS there's a chance. What happens when you start bridging the gap between the geeks who don't want somebody helping them to the mass-market types who desperately want somebody there?

BBSs will always be around for those smaller communities where they either want to know each other or because there is somebody there who will save you.

A job for Quincy?

MG: Then why are so many BBSs dying?

MB: I find theme boards make it. For example Top Gun has files, messages, games, nothing great. But every menu has the back end of an F-16, there are technical schematics, they're hooked up to NASA, they have the NASA newsgroup. This board has about 3,000 people. It took me two months just to verify it existed!

Boards with custom interfaces are really taking off.

AT: High-end BBSs are going to be gateways. The low-end ones don't care. If you're 15 years old you get to be somebody whose reasonably important or you can support your local seniors group.

MB: Or get connections. I got my first job on a BBS.

AT: My online BBS is the reason why my company is named what it is.

BJ. I don't think I've spent more than $25 on postage in the last two years all directly due to this phenomenon. Looking at the hits on my graphic design site I figured out it would have cost me $13,000 in postage to send my portfolio to that many people. That's exposure you can't get anywhere.

MG: Will we get back to the community that you had on BBSs?

BJ: On the Web you can have mailing lists and chat on Web sites.

AT: I have a Web chat site on my page.

BJ: I find chats very draining.

MB: A five-minute conversation takes an hour to type out.

BJ: When you're on a mailing list, you can think about what you want to say, edit, re-edit. On a chat, the level of communication is very shallow.

Should we live together?

MG: In this conversation we've started out with the excitement of BBSs, now we've moved to the Web. Where is it going? Do we need both?

BJ: The more variety the better.

MB: Most BBSs are going to say "we just can't compete with the Web so let's go do our own thing."

AT. Why should they compete? If they continue to exist and are complex and diverse it will prevent for example Microsoft from saying this is the solution: you have to have a Pentium and Win95 to function. You don't. You can have a 286 and hack away.

BJ: The BBS scene is not dying. It's just transmuting. It's very important for that plurality to exist.

MB: I'm looking at my BBS in a new light and thinking "I'm going to have to change the focus here." BBSs are like a club. You can't kick someone off the Internet but I can kick your butt off my board.

BJ: It's a club.

AT: It's a treehouse.

BJ. It can be an organization. ◆

SOHO software: A peek inside two offices

For new SOHOs (small offices/home offices), software shopping is an often perplexing, predictably costly stage inconveniently located after buying the PC, but before receiving the first client's cheque. For experienced SOHOs, acquiring software is the perpetual battle to master learning curves and balance the budget. And, for both, Internet access and Web site investments are often just another confusing choice

• • By S J ROSS • •

"My software is my business" says Fiona K. Fars owner of The Secretary Word Processing and Office Services. "I have to have the best the easiest, the most universally compatible software available"

SOHOs can be overwhelmed by the volume and cost of programs But their software decisions can often be the difference between turning a profit and declaring a loss.

"I have been a designer since 1974" says Kathy Watt, graphic designer, Graphika. "My desktop-publishing software allows me to get four times as much done as I used to. And the more work I do the more money I make."

Friends for life

Both Fars and Watt predominantly use software they learned at staff jobs.

"I grew up with *CorelDraw* and *PageMaker*," says Watt. "I've used every version of both and I continue to use them because I'm familiar with them and happy with them"

Fars, whose business focuses on word processing, relies heavily on *WordPerfect*.

"I learned *WordPerfect* at my office job, so when I opened The Secretary it was the first major software I wanted," says Fars. "I bought the *Professional Perfect Office 3.0* by Novell because I found a good price and it had a nice variety of programs including *WordPerfect 6.1*, *Quattro Pro Presentations* and *Paradox*"

Although Fars has upgraded to Windows 95 (because the midnight release price of "$99 was too good to pass up"), she continues to use DOS 6.1

"I know DOS commands," says Fars "I can do things quickly when I need to"

Watt has not upgraded to Windows 95 "I am hesitant to upgrade because of the learning curve and the expense of new software. I use DOS 6 and Windows 3 11"

Both Watt and Fars use *CorelDraw*, although Watt uses version 5 and does not plan to upgrade and Fars recently upgraded from version 3 to version 6

While Watt has three computers to Fars one the only non-operating programs she has are *Word 6.0 CorelDraw 5*, *Adobe PageMaker* (versions 5 and 6) *Powerpoint*, *PC Shell Stacker* and *WinFax 6* Fars has more software—including *WordPerfect 6.1 Quattro Pro*, *Presentations Paradox Xerox TextBridge 2.0 Micrografix Picture Publisher 4.0A RipTerm*, *ElectroSoft FaxMail for Windows Intuit QuickTax 95* and a variety of freeware programs downloaded from the Internet including *Netscape Navigator Gold 2.01 Eudora WebTiming* and *Mirc 5.2*—because she likes to "try highly-rated software and new software if it is on sale" While both spend approximately $1,000 a year on software Fars tends to stretch her budget further with Internet downloads.

Gradually does it

To minimize software learning curves and cost, both Fars and Watt believe in thorough research and in investing in upgrades of their major packages because as Fars says "it is much easier to learn new versions if you are constantly upgrading."

However while Fars is willing to experiment with new packages Watt is more cautious because "you can spend so much time learning new programs the PC can actually hinder you."

Despite their caution both Fars and Watt have their share of horror stories

"The two worst things that happened were a virus and a hard drive crash," says Watt. "Now I back up everything."

"The worst programs I ever tried were *TypePlus for Windows*, *PagePlus for Windows* and *WinFax Pro*" says Fars "The documentation of the DTP programs was so poorly written they were just too difficult to learn That was a waste of US$90 And even though I worked forever on *WinFax Pro*, I couldn t get it to work properly And their technical support was just miserable"

Both Watt and Fars have Internet access, although Watt has only had access since May and uses it for strictly for e-mail file transfers, and research, preferring client meetings to a Web page. Fars, however, relies heavily on the Internet for research, e-mail, file transfers, as a resource for shareware and freeware, and for the SOHO version of the water cooler chatting.

"My Web page is relatively new" says Fars (http //www inforamp net/~wordpros/) "But it's a handy form of advertising it tells clients I am cutting-edge and it generates inquiries My only problem is all the junk e-mail I receive!"

Get it, got it?

What major software package do these SOHOs recommend?

"I think *WordPerfect* is great," says Fars "It is easy to use you can program macros to do almost anything, make-it-fit is wonderful, merging is fast, graphics are easy and with reveal codes you always know where you are"

Watt recommends *CorelDraw* because "it is easy to learn, easy to manipulate fonts and the node system in the drawing package is great."

"It's tough to keep on top of new software," says Watt. "But good software lets you do everything so much faster. And that is its real benefit"

S.J. Ross, freelance writer and consultant specializing in corporate, marketing, and employee communications, can be reached at sj.ross@guildnet.org ◆

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SOHO specific computers a growing market

Setting up a home office can run away with thousands of dollars just when you need to conserve every penny So choosing just what is essential is essential One of the biggest and most important outlays of all is a computer

• • By LEE LESTER • •

Those going into specialized areas like graphics or big number crunching will need more powerful—and more expensive—models For most small entrepreneurs, however the old adage holds true "Get the best you can afford." You don't want to spend your precious dollars on something that is only current for 12 months after which it may not run the latest software (which enables you to be more exacting in your work and save time when you should be earning)

The burgeoning small office/home office market is important IDC Canada says this segment accounted for 320 000 computers in Canada last year—four out of every ten sold for a total $554 million This year the market is expected to grow by a fifth By the year 2000 SOHO buyers will buy 656 000 accounting for roughly $908 million in sales.

Home hardware

So it's not surprising that almost every major manufacturer is in this market. Here is a selection of items some of the leading contenders suggest are just right for those starting their own businesses

Apple Canada development manager Patricia Heath recommends the all-in-one 100 MHz Power PC Performa 5260 CD which comes with a 14-inch colour display 16 MB RAM 1 2 GB hard drive quad-speed CD-ROM drive 28 8 Kbps fax modem microphone and stereo speakers Likely price about $2 700

Heath adds that how much software comes with a computer should be considered when buying. Buying needed software yourself can cost big moolah

Also make sure the operating system software keyboard, and monitors are included in the price Otherwise you could find yourself forking out hundreds of extra dollars.

Big Blue targets its PC 3000 series directly at this segment of the workforce. Says IBM Canada personal systems vice president Don Myles "By bundling all the hardware and software needed to get up and running right out of the box, SOHO users can be productive immediately"

The line features Pentium processors ranging from 100 MHz to 166 MHz with quad- or 6X-speed drives. 28 8 Kbps fax modems 1 6 or 2 GB hard drives, and a minimum 8 MB RAM Bundled software is said to be worth well over $400 Without monitors likely prices range from $2 750 to $5 200

Compaq spokesperson John Challinor suggests the Presario 9232PC with a Pentium 120 MHz chip 8 MB RAM quad-speed CD-ROM 28 8 Kbps fax modem telephone answering machine and 30 software titles as ideal for the new entrepreneur Probable price $2 500 with another $480 for a Presario 1400 monitor

Packard Bell offers SOHO workers its A100 system The 100 MHz machine With 8 MB RAM and 1 GB hard drive, quad-speed CD-ROM drive and 14 4 Kbps modem prices are likely to start at about $1 700 (without monitor).

Hewlett-Packard, like Apple is everywhere when it comes to the SOHO market Both offer scanners and printers as well as computers HP claims to have produced the industry's first PC designed for small business by determining which features were the most desired and those that inhibited productivity or were disliked by users. The entry level Vectra 510 5/75 has 8 MB RAM and 630 MB hard drive and sells for about $2 010 A 166 MHz version with more memory storage and other goodies costs about $4 670

Branching out

Peripherals too are a hot battleground Among printers the growing popularity of colour combined with rapidly falling prices, means an inkjet model may cost only a few hundred dollars.

Lexmark says "Inkjet technology has proven irresistible for the personal/home office market. Users demand monochrome print quality to be on a par with inexpensive laser printers they quickly choose the colour capability inkjet technology offers over the speed advantage of laser technology"

Lexmark spokesperson Colleen Browne suggests for about $430 the 600 x 600 dpi Color Jetprinter 1020 A big plus Lexmark says its black ink won't smudge or run, even if the page is caught in the rain

Claiming to be an industry leader with even higher resolution is Epson's 720 x 720 dpi Color 500 printer Cost about $560

And, conscious of the limited space available in home and small offices, HP offers the OfficeJet combined printer-fax-copier With some scanning ability prices begin at about $1 080

More ambitious—and more costly—is Sharp's F-2700M Windows-based laser printer It also acts as a fax machine telephone and copier. Price about $1 695

Canon's entries include the Mac- and Windows-compatible BJC-4550 Capable of 11 by 17-inch tabloid-size page output it goes for about $700 ◆

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500CDT	P120	16MB	1 3GB	12 1 TFT	$6 735
650CT	P133	16MB	1 3GB	11 3 TFT	$6 460
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SOHO WHAT?

A SMALL OFFICE/HOME OFFICE SURVEY

SOHO stands for small office/home office, and it's one of the fastest growing sectors in North America's tumultuous employment scene—and one of the few positive things happening in an otherwise gloomy market

• • By ALAN THWAITS • •

SOHOs come in all shapes sizes and flavours To get a snapshot of what's happening (and to test Q&D Software's *WebForms* software reviewed on page XXX) a SOHO survey was recently conducted via a SOHO-oriented Web site News of the survey also circulated via the SOHO-CAN mailing list (an Internet-based list serv that deals with SOHO concerns and issues)

Survey responses were therefore drawn from SOHOs who are already Net savvy or who have access to at least e-mail and the World Wide Web That, and the limited time the survey was available to respondents (due to deadlines), meant that only a relatively small number of potential responses were gathered.

We happy few

The picture of life on the SOHO frontlines comes from a total of 42 respondents One was from Quebec 24 were from Ontario the Prairie provinces and British Columbia each supplied 3 and there were 3 respondents from outside Canada.

Although SOHO has been a buzzword for only a couple of years many of those who responded have been around for a while While 8 respondents have been in business for less than one year, 14 are marking between one and three years of SOHOing, 12 have fought the good fight for between four and ten years and 8 are celebrating more than ten years in business

How big are these home-based businesses? As might be expected, many of them—23 in all—are single-person firms But 15 of those who responded employ between 2 and 5 people 3 have between 6 and 10 and one SOHO reports having between 11 and 25 employees

And in what fields do these micro-businesses do their work? Once again the picture's a varied one Not surprisingly a good number are involved with computers (7) the internet (9) and the communications field (4) One respondent works in the financial services field 6 in the "service" area, 1 in the training field and 12 offer consulting services 7 survey respondents placed themselves in the category of offering "other" services.

More than capable

When the survey questions come to marketspace and home base the capabilities of an information-age SOHO become clear SOHOs, as one would expect, operate mostly from offices in the home (29 in the case of respondents to the survey) but many supplement this with additional space at a business centre (6) rented office space (3) or both (1) Three survey respondents work primarily from rented office space

In spite of (because of?) this focus on the home office as a base of operations 18 respondents reported their marketspace as "international" and 6 as "national" Two said the provice was their marketspace 7 focus on regional markets and 8 on local markets

The survey asked what SOHOs did before they became SOHOs and how they came to be self-employed Twenty-eight reported that they had had jobs in the private sector 12 said they came from the public sector and 2 reported that their SOHO businesses followed graduation from school in seeming contradiction to present downsizing trends 28 of those answering the survey said they became SOHOs by choice Eight moved to self-employment as a result of downsizing, and 5 gave

continued on page 22

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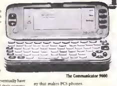
A new way to keep in touch

• • By PAUL LIMA • •

Just when you thought we had run out of new ways to communicate, along comes PCS (Personal Communications Services), a new family of wireless telecommunication services including voice, fax and data, short messaging, paging and, eventually, video conferencing

PCS has spread like wildfire across Europe over the last two years, but regulatory delays kept that innovative cellular system out of the Canadian market until last year, when Industry Canada awarded PCS licences to Microcell Telecommunications Clearnet Communications Cantel and Mobility Canada PCS will be introduced in Montreal this fall by Microcell, the other companies will launch networks in 1997.

While existing cellular operates in the 800 MHz radio frequency spectrum PCS will transmit in the 2 GHz spectrum The higher spectrum or broader bandwidth, in conjunction with digital PCS networks will enable carriers to deliver more services more reliably enhance privacy and reduce fraud



The Communicator 9000

Digital through and through

Although cellular networks are converting to digital PCS will be digital from the ground up and data will travel faster across PCS networks than across analogue cellular networks

"With PCS individuals will eventually have one telephone number for all their communications needs—from voice and messaging services to fax and data (network and Internet) transmission—anywhere any time" says Roger Poirier of the Canadian Wireless Telecommunications Association

While the first PCS service will be voice communications PCS subscribers will also be able to use data-ready PCS handsets combined with notebook computers to send and receive faxes upload and download e-mail, and tap into corporate computer networks Because of the 2 GHz bandwidth and digital networks they will be less likely to encounter network busy signals transmission slow downs or dropped lines

"At last you will be able to do (by wireless) what you normally do when tied to the desk," says John Whiteford, business development manager for Nokia, a company that makes PCS phones.

Wireless fax and data communications has become so popular in Europe that Nokia introduced a combined PCS handset/Intel 386 computer—the Communicator 9000—in August. Small enough to fit into a jacket pocket or purse it lets users communicate by voice access the Internet or office network, and send or receive faxes and short messages without connecting handsets to notebooks using PC cards and cables.

Eventually PCS will also allow users to send short messages to defined groups. For instance, a sales manager will be able to broadcast an alphanumeric message from his handset or computer to sales representatives; corporate databases can be programmed to transmit information to defined groups of PCS users at predetermined times. ◆

SOHO what? ...

continued from page 21

"other" as a reason for the move

Questions about the use of technology also produced some surprises. Although 18 respondents report they use Windows 95 15 others have resisted temptation, and continue to work with Windows 3.1 Macintosh and OS/2 also have their champions, with 6 declaring for the former and 3 for the latter (and a couple of respondents also reported using Windows NT and UNIX systems as well as those already listed).

Getting lots of worms

SOHOs are often early adopters of technology—especially when it builds business. Eighteen respondents reported having business-related Web sites, while 11 plan to launch a site within 6 months, and 4 plan to do so within a year.

And the future? Well these folks aren't letting the moss grow Eight plan to hire more staff within a year and six plan to do so within the next 5 years One is looking at moving to new premises within the next 12 months and two plan to do so within the next 5

Last, but not least, comes equipment. SOHO businesses depend on technology and the survey respondents plan technology purchases and upgrades that will keep them on the leading edge. Within the next 12 months, they report that they plan to buy (or upgrade) their computer system (26), modem (20), or printer (11). Fifteen respondents are looking at adding or upgrading a CD-ROM drive, and 12 are seriously contemplating a telephony-related product.

Alan Thwaits is a freelance writer based in Mississauga, Ontario. He can be reached at pracomm@idirect.co ◆

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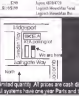

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It's open SEASON for COMPUTER thieves

Protecting yourself from viruses or hardware system failures might seem like a necessary pain in the butt, but it can at least provide you with a secure feeling that you have done all you can to prevent any data disaster. But what do you do when you lose your entire system—literally—including backups, software, peripherals, and whatever else you had on your desk?

• • By STEVE BAIN • •

If you think viruses are counter-productive, you ain't seen nothin yet. Theft often happens to people who put too much trust in their property security systems key locking systems, or their next-door neighbour, for that matter.

Protection from hardware theft is a risk many computer owners unfortunately ignore or don't view as a serious problem. People working in offices or at home often don't bother taking any steps to secure their computers, making it open season for thieves.

Vancouver computer theft is rampant

"Computer theft in the Greater Vancouver area is escalating at a serious rate right now" says Staff Sergeant Ken Winn of the Vancouver Police Commercial Crime Unit. "At the moment, computers seem to be the item of choice."

Downtown office buildings are among the favorites targets for thieves St. Paul's Hospital and several other medical-related offices on Burrard Street were recently robbed.

"Thieves tend to be more active during weekends and target offices they already know contain

continued on page 25

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It's open season for...

continued from page 24

computer equipment Then they simply break in and quickly take everything they can get their hands on" Monday mornings when the office owners arrive to begin their work day they're faced with the bad news.

Vancouver Police don t suspect an organized theft ring at the moment "Computers are becoming smaller and more valuable and more in demand on the black market" says Sergeant Winn "Thieves now know that they can easily fence a stolen computer For most petty criminals computers are a high-profit quick turnover"

The increase in computer theft is largely due to an increase in the marketability of stolen computers That means there are significant numbers of customers who simply don t care where the equipment comes from, as long as the price is right

"Some of the equipment stolen ends up in local pawn shops but most are sold on the street and then stolen on demand" says Sergeant Winn "This is the same way large auto-theft rings operate

"Someone on the street will place an order for a certain make or model and professional thieves simply go and get it, in essence filling the order They're sure they can dispose of it in a hurry It's all being done through the street grapevine" Same farm, different harvest

Computer chop shops

"Laptops are being taken like crazy" says Sergeant Winn The very nature of laptops is that they are portable making them easier to be snatched up without notice

Larger computers are apparently also being taken apart and cannibalized for their parts and internal peripherals, such as RAM, hard drives, CD-ROM drives and whatever else can be taken out and sold.

Like auto parts it s much easier to sell an unmarked part than it is to sell the whole system Internal parts are a favourite due to the simple fact that owners don t usually go to the effort to record serial numbers or mark specific items inside their computers—and thieves know this

An ounce of prevention

"The best way to safeguard yourself from this type of theft is to mark all your computer equipment with an identification number" says Winn "Your drivers license number is actually the best identification to use as opposed to a social insurance number Most people have drivers licenses"

Also, put up a sign on your computer system as message to would-be thieves that states that your equipment has been permanently identified and registered with the police

Next make sure you record all of the serial numbers of your equipment written down somewhere and stored in a safe place "That s how we re recovering most of the stolen property we find" says Winn. "If we can find an identifiable number on equipment we think is stolen, we'll run it through our Canadian Police Information Computer (CPIC) system to see if it s stolen and see if we can track down the registered owner."

Police tell the public repeatedly to "mark your belongings" If an item isn t marked in a way that identifies it as yours and it becomes someone else s stolen property it may not find its way back to you even if it s recovered by police

The next way is to use a wire security cord attached to your computer system making the complete unit difficult to take Unfortunately as with bicycles many types of wires can be cut

Safeguarding yourself from computer theft is largely the responsibility of the computer owner More often than not the data held on your computer is more valuable to you than the computer hardware itself Being robbed of both can be a nightmare come true and your loss in productivity will compound the overall loss

The best—and cheapest—strategy is to mark your equipment, so you can at least recover it if someone's lucky enough to discover it stolen

Steve Bain is a writer in Vancouver Canada He can be reached on CompuServe at 72623,1233 or via the Internet at Steve@Oneun com ◆

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New HotDog full of mystery meat

Marketing is everything Who doesn't want a hot dog? Just spread a little relish and mustard, squeeze some ketchup over top, and enjoy The nagging question as to what is really in the hot dog is easy to push aside When the hot dog is a software program, however, the contents have to be looked at carefully

• • By CLIFF CUNNINGHAM • •

HotDog Pro distributed by Anawave Software bills itself as the world's most popular Web editor That may be true but the newly released version 2 097 contains enough limitations and bugs to befuddle Web novices and exasperate Web gurus

Confusion begins with the 133-page manual and its 15-page tutorial It starts by entering a line of text and inserting a graphic To see the results you naturally want to launch your browser The manual instructs you to "select the Browser from the file dialog" Unfortunately, no such option exists

Perusing the toolbar it seems obvious to choose Preview Clicking on this prompts a message telling you to inform *HotDog* what the location of your browser is It does not tell you how to do this! Worse still the only entry for "browser" in the index is in the glossary With a lot of digging you will find that the path Tools/Options/File Dir will offer up the necessary dialogue box

Apples and oranges, anyone?

At the end of the tutorial the "correct" HTML syntax of the tutorial is printed in full in order to allow a comparison with what you have created There are so many differences between the "correct" version, and the one you will create by carefully following the tutorial I can scarcely enumerate them

In order to determine the validity of the syntax the natural option would be to run the HTML syntax editor I carefully modified the lines of code to reproduce the "correct" version precisely and then ran the editor Even though the code produces a perfectly acceptable Web page the editor found three errors!

When you run a spell checker in a word processor, it highlights suspect entries *HotDog*'s HTML editor only tells you of a suspected missing bit of code without indi-

continued on page 27

INFO BOX

HotDog Pro version 2.097 from Anawave Software. $99 A free 30-day trial version is available from http://www.sausage.com/

For further details, contact Anawave Software, Inc. at (714) 250-7262, or fax (714) 250-7265

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New *HotDog* Is full of ...

continued from page 26

cating where it is. In a complicated Web page this could result in a very time consuming search but since the editor seems to be faulty it is a moot point. I could not identify any of the reported code errors.

Not very funny

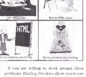
One wonders if the syntax editor is a joke. On page 104 the one line description of what it is and how it works reads "Use this tool to check you [sic] HTML for any errors." Maybe the syntax editor needs its own editor.

By the way, *HotDog*'s spell checker only works on the first 32 KB so lengthy Web pages need to be proofread carefully. The manual has a duplicate sentence on page 67.

In the ultimate of ironies the software seems unaware of itself. When I ran the spell checker it flagged *HotDog* as an unknown word in the tutorial Web page.

Since HTML is the meat of a Web page the option of removing it to convert the page into plain text is appealing. The manual clearly states that "if you choose this accidentally you will be able to undo it." Beware! If you remove them there is no way to undo it. The undo feature does not work in this case nor does the manual indicate any other way to undo the process.

Serious users will regret the lack of any support for word-processor conversions or graphics converters.



If you are willing to work around these problems, *HotDog Pro* does allow you to create Web pages with little or no knowledge of HTML. It is a program with serious potential in a future release. ◆

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dedication. imagine that.

"Quick" presentation program takes some getting used to

• • By PAUL LIMA • •

ASAP WordPower from SPC transforms word-processing files into presentations in minutes according to the message that popped up when I installed *ASAP*. Now doesn't that sound like a challenge for a reviewer?

Once *ASAP* was installed, I tossed the manual and clicked on the *ASAP WordPower* icon Up popped *ASAP* Help outlining a four-step process designed to help users create finished presentations. The first 'quick' step went on for several screens, so I closed Help and retrieved the manual.

While the manual had some interesting stats in it (44 per cent of executives write speeches on airplanes, 28 per cent in the office and 14 per cent in hotel rooms) it is not really a "manual" It's a guide for creating presentations (I officially discovered this later when I read the back of the package) So it was back to Help

Second time round with Help I quickly created a presentation cover page choosing from an icon menu of options that includes 22 layouts 14 designs, and 18 colour schemes

What next?

But I couldn't figure out how to create page two of my presentation Back to Help "Drag the layout you want for the new page into the Preview area As you drag the pointer becomes a wand with three stars attached When you release the mouse button *ASAP* creates a new page" The good news is? Once you figure out how to create a new page the Help file actually makes sense

Next test. I opened a file in *Word* to convert it into a presentation. *ASAP* had inserted a "Winged-A" icon in my *Word* tool bar but when I clicked on the icon, an error message popped up "The temp directory could not be found etc "You'd think if one program was tampering with another, it would let you know all was not well during the install process.

After editing my AUTOEXEC BAT file and rebooting, I was back in *Word* I opened a file

INFO BOX

ASAP WordPower version 1.95, from Software Publishing Corporation Windows 3.1 95 and NT $125
For more information, call 1-800-336-8360 mail bhendrick@spco.com or visit http://www.spco.com/

continued on page 30

Powerful OS/2 file manager appears

• • By KEVIN LINFIELD • •

One of the complaints many OS/2 users have is that their operating system of choice does not come with a native file manager SofTouch Systems Inc recognised this shortfall and has recently released FileStar/2 version 2.0 for OS/2

INFO BOX

FileStar/2 version 2.0, from SofTouch Systems. $139 (MRSP) $100 or less (street).
For more information, visit http://www.softouch.com/

FileStar/2 is more than just your average run-of-the-mill file manager. It also displays information on system resources, system information, and includes a file-find utility Designed for both advanced OS/2 users as well as users migrating from DOS/Windows, it is meant to compliment the use of OS/2's Drives object.

Easy installation

FileStar/2 ships on a single 3 5-inch diskette and is very easy to install Simply run the installation program from the disk and after you are prompted for a directory It automatically installs itself and creates an icon on your desktop Like all good installation routines it asks your permission before it modifies your CONFIG SYS file My advice don't let it. There is no reason to add it to your path unless you plan on launching it from a command prompt. When all is said and done it takes up about 3 MB of space on your hard drive

FileStar/2 is a multithreaded Presentation Manager application that is fully drag-and-drop enabled. The main display consists of four windows drive directory and two file windows. Below this is a data panel that gives you information on the selected file(s) and above this is a button bar with *fly-over help*.

Everything is manipulated via the mouse. Simply drag and drop files to move (or copy) them between the file windows. Dragging a file to the shredder deletes it as easy as 1-2-3 Other features include modifying file attributes renaming a file, or changing the time

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Online forms made easy—really easy

A good Web site does three things: it loads quickly, it shows information well, and it invites visitor input.

• • By ALAN THWAITS • •

INFO BOX

WebForms 2.1, from Q&D Software. US$21.95 (standard) or US$34.95 (professional).
For more information, visit http://www.q-d.com/

The first two elements come from following good design principles. The third has to do with Web-building tools and their use.

A well done Web site works because it allows information to flow two ways so that Web designer and Web visitor participate in a dialogue. The standard ways of inviting interaction are to offer an e-mail address visitors can use to respond, and to give them forms to fill out.

Love them little boxes!

Everyone likes to fill out forms, right? So the savvy Web designer offers visitors feedback forms, survey forms, guestbooks, and more complex, business-related forms. Most forms however (and here's where things begin to get sticky) depend on something called CGI (Common Gateway Interface) scripting. And CGI scripting requires both programming skill and certain hardware/software configurations. That can translate into a considerable investment in time, learning, and funds.

But there is an easier way to get effective, good-looking forms up on your Web site *without* learning CGI scripting or paying for CGI bin directory space on your site's server. It comes via a program called *WebForms* from Q&D Software.

Version 2.1 of *WebForms* includes the ability to create HTML-based forms built from your text input and allowing a number of controls such as radio buttons, check boxes and list boxes. The standard edition of *WebForms* allows responses to your Web site-based forms to be imported individually, storing the responses for easy viewing.

You'll get more bang for your buck by getting *WebForms Professional*. It has all the features of the standard edition as well as the following: batch importing of multiple responses, direct importing from your Point of Presence mail server, direct access to your Web browser of choice (so you can see what your form looks like before you place it on your site), the ability to copy an existing form's layout to a new form, and the ability to customize the appearance of your form's controls.

Tab your way around

Using *WebForms* is easy. Simply move through a series of tabbed "pages" entering text for the fields you want the form to show (e.g. operating system, business sector, and so on) and for the choices in each field. Continue through the tabs to choose controls like radio buttons and check boxes and link the controls to the appropriate texts. Hit a button called "Complete" and there you have it—an interactive, custom-designed form for your Web site!

A bit of "exploring the possibilities" reveals that a WebForm can be further customized by saving it, then editing in HTML tags to give it a look consistent with the rest of your Web site. As an added bonus *WebForms* allows you to write text for a Java script that displays across the bottom of your form.

If you want your Web site to be a live one, *WebForms* can help you reach that goal with a minimum of fuss and expense. An idea whose time has come, don't you think? ◆

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Software

How to point and click

• • By JIM CAUGHRAN • •

Are computers complicated scary machines that require lots of training to use? How much instruction does a child need for using a computer?

VroomBooks has created *My Very First Software* to start children out. Aimed at those two to five years old, it's an attractive program that presents several games to get children started pointing, clicking and pressing keys. An extraterrestrial guide helps children through three units each set being three games and a vocabulary lesson. The lessons are short to match a child's attention span.

The games have songs effects, and animations, and include many different activities, mostly familiar to children. They can draw, sing, stamp designs, and print and colour 20 pictures. My favourite is the music machine, which plays several tunes in a choice of traditional, jazz, or country versions.

All play and no work...

If more instruction and less play is desired there is a tutorial that explains in detail the themes, pointing and clicking for the first three games, double-clicking and dragging for the next three, and the keyboard for the last set.

Vocabulary animations explain computer terms. For the program narrations you have a choice of English, French, Spanish or German, and can install more than one language. Adults may want to use the foreign language vocabulary lessons to discover terms for computer words in other languages.

The program succeeds very well. It is attractive, multilingual and well thought-out. Young children also think it's fun. My five-year-old, a computer veteran, thinks it's *cool* although the skills presented are things he has been doing for most of his life.

If a parent is comfortable with the computer, children will take to it naturally. If the parent is afraid of it, a child may pick up that feeling and have trouble using the computer. I suspect that for children whose parents are computer-savvy this program is unnecessary but fun. Parents who are uneasy around a computer may be able to give the children more confidence than the adults have, by using this program. ◆

INFO BOX

My Very First Software, from VroomBooks. Macintosh, Windows, Windows 95. $39.95 ("targetted street price"). For more information, call (415)962-0195.

Powerful OS/2 file manager ...

continued from page 28

and date of a file.

The program is integrated with InfoZip's ZIP and UNZIP program, so you can view zipped files without unzipping them or you can select a number of files and easily create a single zip file.

Minimizing is nice

A nice "added feature" is the ability to minimize the program into a "swap window" that will continuously display information about system resources on your desktop. You can associate files with other programs or utilities by file extension.

For example, by double clicking on a graphic file (PCX, GIF, JPG and so on) I had FileStar/2 automatically launch PMJPEG.

In setting this up, however, I discovered a serious bug in FileStar that causes the program to crash with a SYS3175 error message. A quick e-mail to SofTouch solved the problem and they assured me that a corrective service package will be released in the near future.

All of these features do not come cheaply however. The program is slow to load on a 486 and it is probably best to have a Pentium with 16 MB of RAM.

There are so many things you can set up and so many options it is easy for a user new to the program to be overwhelmed. My advice would be to stick with it. FileStar/2 is a very powerful program that can make users who abhor the command prompt much happier with their computing. ◆

"Quick" presentation program ...

continued from page 28

clicked on the *ASAP* icon and ... Presto! *ASAP* converted a file into a presentation. Cool.

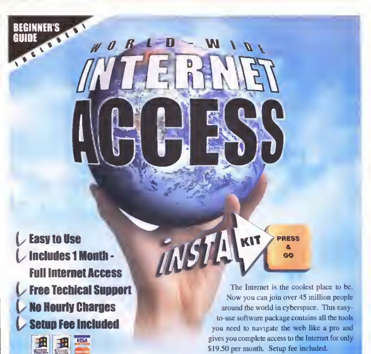
I would not describe it as perfect, but the more I learned how to prepare *Word* documents for *ASAP* (for instance, *ASAP* reads an extra paragraph break as a new presentation page) the better my presentations looked.

Once back in *ASAP* I used the "intelligent" layouts, designs and colour schemes to finesse my documentation for final presentation and inserted clip art from *Word*.

As smart as *ASAP* is, it requires few system resources: 3.5 MB of hard-disk space and 1 MB of free RAM.

ASAP is compatible with Microsoft's *PowerPoint*. Users can create pyramid or other charts in *ASAP* and import them into *PowerPoint*, and outlines prepared in *ASAP* can be saved as text files and opened in *PowerPoint*.

It would be nice to create presentations in *ASAP* and save them as HTML files with pages hot-linked to each other. Considering that SPC has announced a plug-in presentation viewer, *ASAP WebShow* for *Netscape Navigator 2.0*, perhaps we might see HTML integration in the next version of *ASAP*. ◆



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Pentium VS Pentium Pro

• • By MYLES WHITE • •

If you're looking for a new killer PC—something out at the leading edge packed with power and goodies—even assuming you can afford all these things you have a dilemma.

Until the past year or so finding the leading edge wasn't a problem. If a PC was the object, then whatever processor Intel put on the market yesterday (or you heard they were about to release tomorrow) was what you sought. You paid the price premium attached to leading-edge products and, depending on brand name component mix and the amount of memory you could afford, prepared to lay out somewhere around $5 000.

Enter the dilemma

The problem is that Intel is currently marketing two distinct lines of processors—the Pentium and its successor, the Pentium Pro (formerly known as the P6). As things stand, each type of CPU currently tops out at 200 MHz and systems employing them can each come equipped with as much memory as large a hard drive and as sexy a group of peripheral multimedia and communications components as even the most jaded computer power junkie could covet.

Again depending on brand, the price for these systems is within spitting distance of $5 000 (that figure has held steady for several computer generations now) and all other things being equal, it's pretty much a toss-up between the two.

If you've read some of the reviews in any of the US glossy magazines, however, the one thing that emerges from the various tests that people have run is that the Pentium does a better job of running 16-bit software while the Pentium Pro we're told, is optimized for 32-bit products.

Without getting into highly technical discussions of how processors handle data, the simplest way to see the difference between 16- and 32-bit is by operating system. Windows 3.x and the software developed for it are 16-bit programs. Windows 3.x is not designed to run 32-bit software. Internally, Windows 95 uses a mix of 16- and 32-bit processes and will run both 32-bit and most 16-bit software. OS/2 and Windows NT are purely 32-bit operating systems (although both will also run a lot of 16-bit software as well).

I tested two systems, an AST Bravo MS-T 6200 with 200 MHz Pentium Pro processor and a Dell Dimension XPS P200c with 200 MHz Pentium processor over several weeks. Each system arrived with 32 MB of RAM a 2.5 GB hard drive an 8X CD-ROM, and a sound card. The AST came with 15-inch Vision5L monitor and the 2 MB version of the Matrox Millenium graphics card, while the Dell shipped with a 17-inch Sony Trinitron monitor bearing the Dell name a Number Nine Reality FX graphics controller and a 28.8 Kbps modem. Both are in that $5 000+ ballpark.

The major difference was in operating system. The Dell came with Windows 95, while the AST shipped with Windows NT 3.51. Aside from the look and feel of each environment being different (this version of NT still looks like Windows 3.x) day-to-day operations with the two systems left little to distinguish between them.

For example there was a considerable difference in response speed (how quickly a program leaped onto screen once invoked) and performance (how quickly you could do things once the program was there) between the two powerhouses and my old 486 DX4/100—which now seems dreadfully slow and painful to use—but things happened so quickly on the two newer systems that it wasn't easy to judge them subjectively.

Testing, testing

So I ran them through a few processor benchmark tests and the objective reports told a different tale.

The 200 MHz Pentium was faster than the 200 MHz Pentium Pro running 16-bit code—but only marginally. For example on the Ziff Davis WinBench 96 CPUmark16 tests, the Dell scored 376, while the AST scored 357. That's not a big difference but it does demonstrate that the Pentium processor handled 16-bit code a little better than the Pentium Pro.

On the 32-bit processor tests, however, there was a significant difference. The AST's Pentium Pro coughed up a CPUmark32 score of 534 compared to the Dell's Pentium at 381.

Benchmark numbers are a little difficult to relate to reality so here's another way to put it. The *Motion 3D* program that ships with the 32-bit *CorelDraw 6 Suite* took over six minutes (6.27) to render the sample file accompanying it to a screen preview on the Pentium processor, while the same operation on the Pentium Pro required only 2:04 (yep three times faster).

How would the 486 fare? No wonder it felt slow. Its DX4/100 processor, which once seemed so speedy racked up 92.9 on the 16-bit tests and a miserable 75.3 on the 32-bit round (and, of course because it was running Windows for Workgroups 3.11 it was unable to run *Motion 3D*).

Pick your software

So where does that leave us? Pentium or Pentium Pro? To me it seems like the answer is going to be settled by the software you're planning to run with your new computer. Keeping in mind that operating systems and the software that runs on them will continue to evolve but that the system you buy today will be ready for replacement in three to five years at the outside (that's about the average turnaround time for business and power user equipment now), I'd base my purchasing strategy on what I expect to be doing with the system over that period.

If you're staying with Windows 3.x or making the jump to Win95 a Pentium-based system will keep you reasonably happy. If you've decided that OS/2 or Windows NT is the system for you or if you're running primarily 32-bit software, then the Pentium Pro will provide better performance. ●

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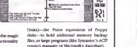
Good things come in small packages:

THE PSION SERIES 3A PALMTOP COMPUTER

• • By ALAN THWAITS • •

How much work can a busy freelance writer and Internet-content developer do on a palmtop computer? That was the assignment given your faithful scribe, and the answer, in a nutshell, is "almost everything."

For the assignment the folks at Compulys Data (Psion's Canadian distributor) and Widgett Software (a local store specializing in Psions) lent me a Psion Series 3a 1 MB model (it also comes in 256 KB, 512 KB, and 2 MB attire) and a 14.4 Kbps "pocket" fax/modem. Using the Psion and an assortment of commercial shareware, and freeware software, I successfully dealt with the following duties: writing articles and course modules, accessing CompuServe for mail and forum messages, sending faxes, viewing a Web site I'm building, accessing a BBS on which I'm the co-sysop and keeping track of billing for half-a-dozen clients.



How did all of this get done? By the magic combination of portability and functionality.

Carry me

Clearly the Psion features portability. The 3a measures 6.5 by 3.3 by 0.9 inches—about the size of a cellular phone. It fits handily into a suit pocket, a handbag, or the back pocket of your jeans. Total weight (with two AA batteries) is 275 grams. By comparison, an average issue of *Toronto Computes!* weighs about 250 grams.

In the world of palmtops, functionality stands next to godliness, and this is where the Psion really shines. What the 3a delivers from its 16-bit, 7.68 MHz 80C86 processor is nothing short of amazing. A little design theory is needed to explain why.

Palmtop computers have high demand requirements. They must start immediately, be power- and memory-efficient, and never lose the user's data. They have to be responsive and bug-free, and offer deep functionality in small code size, while appearing intuitive to novice and power users alike. Because they're used "on the run," they can't present obstacles to useability.

The Psion user navigates via a 126 by 45 mm, 480 by 160 pixel, greyscale display, and a "chiclet key" QWERTY keyboard. Filenames appear on the screen under appropriate program icons, which can themselves be configured according to user priorities and preferences.

Slots at each end of the unit allow the insertion of "flash" or RAM SSDs (Solid State Disks)—the Psion equivalent of floppy disks—to hold additional memory backup files, or large programs (like Symantec's *ACT!* contact manager or Microsoft's *AutoMap*).

The first two surprises provided by the Psion are the quality of the screen display—much better than that offered by competing products—and the usability of the keyboard. Screen contrast can be adjusted according to user needs, although screen flicker is an issue in bright sunlight. The keyboard, small though it is, presented no problems for this fast four-finger typist. Learning to type quickly and accurately with my thumbs—the true mark of a palmtop enthusiast—came quickly enough.

Me and my shadow

Ease of access and a high level of functionality mean that the Psion soon becomes a constant companion. That's why it inspires nearly cult-like devotion among Psion enthusiasts. As Compulys Data PLC vice president David Elder says, "Working with a good palmtop becomes second nature, because it's an always-with-you device."

The fact that the Psion allows "always-with-you" multitasking means that it supports the way human beings work. We're constantly on the move among a number of tasks—from retrieving the fax number of a colleague to writing notes, from entering numbers into a spreadsheet to picking up e-mail. Using a computing tool small enough to fit into a pocket and agile enough to multitask between powerful applications means a real boost in efficiency, accuracy and effectiveness for the real-world user.

And so the third benefit of the "mighty mite" Psion comes to the fore—this machine encourages creativity!

Doctors use Psions to gather up-to-date information during hospital rounds. Airline

continued on page 36

INFO BOX

The Psion Series 3a palmtop computer from Psion PLC. 512KB model: $560 (street price), $449 (Widget price); 1 MB model: $699 (street), $679 (Widget), 2 MB model: $849 (street), $829 (Widget).
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computer security
a reading list

There is no lack of material when it comes to the security and protection of your computer and data. The problem comes in determining which type of security guide is right for you. That depends—a lot—upon what type of computer user you are

• • By ROBERT SLADE • •

For those who want to get a grounding in the concepts of data security, a good start is Russell and Gangemi's *Computer Security Basics*. It's got a few problems, but is generally readable and covers the field overall. A more recent guide, and one targeted more at the "personal" computer user is *The Underground Guide to Computer Security* by Michael Alexander.

An odd addition to this collection is *Secrets of a Super Hacker* by Dennis Fiery (AKA The Knightmare). This rather disjointed little book won't give you any real secrets about either system cracking or defence, but it provides an excellent lesson to anyone on one of the biggest security problems of them all: social engineering. Finally the enduring *Computers Under Attack* is a collection of essays edited by Peter Denning, all related to security and also "the Net."

After all that, you'll want some help *Information Security Policies Made Easy* by Charles Cresson-Wood contains hundreds of security policies on all kinds of issues. It's an expensive work, but if it is the difference between having a security policy and not having one it's worth it.

Ironically with the reputation it has, the foundational concepts behind system security start with UNIX. The two basic books on the topic both have the same title. *Unix System Security*, by Rik Farrow and David A. Curry respectively. The best, though, is *Practical UNIX Security* by Simson Garfinkel and Gene Spafford.

Right now the hot topic is the Internet, and in corporate minds Internet security is spelled "firewall." A firewall is *not* the mother of all Net security, but it is an important part of it. The classic work in this field is Cheswick and Bellovin's *Firewalls and Internet Security* which gives solid advice

continued on page 39

INFO BOX

Computer Security Basics, by Deborah Russell and G.T Gangemi, Sr. from O'Reilly and Associates, Inc. 1991 0-937175-71-4.

The Underground Guide to Computer Security by Michael Alexander from Addison-Wesley Publishing Co. 1994. 0-201-48918-X. Can$27

Secrets of a Super Hacker by Dennis Fiery, from Loompanics Unlimited. 1994. 1-55950-106-5. US$19.95.

Computers Under Attack, edited by Peter Denning, from Addison-Wesley Publishing Co. 1990. 0-201-53067-8.

Information Security Policies Made Easy by Charles Cresson-Wood. 1994. 1-881585-01-0. US$495.

Unix System Security by Rik Farrow, from Addison-Wesley Publishing Co. 1991 0-201-57030-0. Can$29.95.

Unix System Security by David A. Curry, Addison-Wesley Publishing Co. 1994. 0-201-56327-4.

Practical UNIX Security by Simson Garfinkel and Gene Spafford. 1994. 0-937175-72-2.

Firewalls and Internet Security by Cheswick and Bellovin. 1994. 0-201-63357-4. US$26.95.

Building Internet Firewalls, by Chapman and Zwicky. 1995. 1 56592-124-0.

Research Directions in Database Security, edited by Teresa F. Lunt, from Springer Verlag.

Computer Crime: A Crimefighter's Handbook by David Icove, Karl Seger and William VonStorch. 1994. 1 56592-086-4. US$24.95.

Computer-Related Risks, by Peter Neumann. 1994. 0-201 55805-X. US$24.75.

The Computer User's Survival Guide, by Joan Stigliani. 1994. 1-56592-030-9 Can$31.95.

Digital Woes, by Lauren Wiener 1993. 0-201-62609-8. Can$29.95.

Applied Cryptography by Bruce Schneier 1994. 0-471 11709-9. Can$64.95.

E-Mail Security by Bruce Schneier 1994. 0-471 05318-X. Can$32.50.

Protect Your Privacy by William Stallings. 1994. 0-13-185596-4. US$19.95.

PGP: Pretty Good Privacy, by Simson Garfinkel. 1995. 1-56592-098-8.

Guide to Computer Viruses, by Robert Slade. 1994. 0-387-94663-2. US$34.95.

PC Security and Virus Protection Handbook, by Pamela Kane. 1994. 1-55851-390-6. Can$49.95.

Dr Solomon's Virus Encyclopedia, by Alan Solomon. 1994. 1-897661-00-2.

A Pathology of Computer Viruses, by Ferbrache. 1993. 0-387 19610-2. US$49

A Short Course on Computer Viruses, by Cohen. 1994. 0-471-00768-6.

Good things come in small ...

continued from page 35

pilots use them to calculate monitor and print out flight plans The Canadian military used a commercial version of the Psion to bar-code its tanks in Bosnia And business travellers the world over use Psions as contact managers, minute takers, spreadsheet builders and more—after all Psion controls 33 per cent of the world palmtop market

And what does this writer use the Psion for? Well, at the time of this writing, my Series 3a holds seven "articles in progress" three modules for upcoming courses three databases five spreadsheets a VT100 emulator, fax software a spell checker/thesaurus a scientific calculator, a "world cities" app (so I can see when an editor in Hong Kong receives the stories I've filed) an agenda program (one of the best I've ever used) an application that lets me access CompuServe, and the *entire text* of H G Wells *The Time Machine*.

And I still have 452 KB free on the machine's 1 MB hard drive!

From two SSDs, I'm running *TimeBase* from Total Computer Systems (to keep track of project billing) and *MS AutoMap* (to plan trips by car and bicycle)

Little hitches

What *won't* the Psion do? Well, at the moment, I can't use it to connect to my ISP (Internet service provider). TCP/IP stacks for the Psion are on their way however, says David Elder An individual Internet package will be available to Psion users before the end of 1996

Also on the near horizon for the Psion is IR (infrared) capability-which means being able to run printers modems and other peripherals *without* the need to connect via cables and wires.

(What *I'd* really like though is an "indiglo" type backlight for the Psion's display so when those brilliant ideas strike in the middle of the night I can record them for posterity!)

I've always known this good technology enables good work What the Psion has shown me is that *really* good technology goes far beyond that—it inspires new ideas and invites new ways of using available resources It changes the way we work and sometimes it even changes the way we think about work. Not bad, not bad at all for something I can carry around in my pocket! ◆

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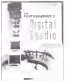
Digital A thorough explanation

• • By [illegible] • •

The [illegible] computers and other electronic tools [illegible] find reading material that was relevant to me [illegible] target.

The Photographer's Digital Studio is a good overview of what's new and improved in the field of digital imaging. The text is written at the beginning to intermediate level. Its target [illegible] expertise.

[illegible] the book starts with [illegible] chapters that explain how [illegible] photography differs from photography. Farace then discusses PC and Mac platforms and leaves you with the knowledge that your computer, whatever its limitations, is probably fine but this work [illegible] a dedicated upgrade [illegible].



The second set of chapters looks at various pieces of hardware such as digital cameras in different price ranges and scanners. He offers some ideas on lab processing. Throughout he writes very objectively.

The middle 150 or so pages look at typical software programs both for Mac and the PC. Farace explores each program briefly and highlights a few significant tools, capabilities or unusual features. He spends considerable time, as one might expect, with *Photoshop*.

As he examines a program he creates or manipulates an image. With lots of screen shots he shows the reader both the What and the How. I found information on all the programs I have available on my various computers.

While the way we get images into our processing programs is important, it's the final output that really counts. The text looks at the problems of storing images, colour management (e.g. monitor setup, printing, film recorders) and how to use service bureaus.

At back of the book are a couple of appendices listing various pertinent manufacturers and reviewing current (spring 1996) scanners.

Easy reading

This book is very readable. I enjoyed my trip through the chapters, never feeling I was being spoken down to nor left in the dark(room). The author is at his best when he shows how tasks are completed. The development of pieces of work to the final colour print is compelling.

The book would have benefited from a couple of hours of extra editing. The layout is good but at times screen shots tend to drift away from the matching copy. Colour pages are grouped in a single section which necessitates much page flipping.

A good overall look at the topic of electronic pixography. It's now on the reading list for my course. ◆

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Computer security ...

continued from page 36

for building firewall machines on TCP/IP or any other networks. Even better, for those actually working hands-on is *Building Internet Firewalls* by Chapman and Zwicky, an excellent introduction with practical suggestions

If you think you know about data security looking into database security will change your mind in a hurry A good introduction to the myriad problems in this complex area is *Research Directions in Database Security* a collection of essays edited by Teresa F Lunt

Oddly computer crime gets lousy coverage The sensational bestsellers seldom provide any understanding of the real issues while the computer security guides tend to look at everything as a problem of access rights A recent addition to the field is *Computer Crime A Crimefighter s Handbook* by David Icove Karl Seger and William VonStorch This is a practical guide for system managers and cops but is definitely written from a law enforcement standpoint and has a lot of technical holes

Crime and crackers aren t the only things to beware of in regard to computers Peter Neumann is the moderator of the RISKS-FORUM Digest electronic mailing list on the Net an always fascinating arena that is an example of online discussion at its best His *Computer-Related Risks* contains exhaustive examples of potential technological perils *The Computer User s Survival Guide* by Joan Stigliani tends to be a bit "New Age" but is a good practical guide to what your computer can do to harm you and what you can do to prevent it More social and philosophical is Lauren Wiener s *Digital Woes* an excellent introduction to the risks of software

At some point, all data security rests on encryption *The* introduction to the field is Bruce Schneier s *Applied Cryptography* For the average e mail user available and realistic encryption is supplied by the PGP (Pretty Good Privacy) program Three equally good books on the topic are *E Mail Security* again by Schneier William Stallings *Protect Your Privacy* and *PGP Pretty Good Privacy* by Simson Garfinkel

For computer virus information and protection in my completely unbiased opinion the best computer virus book ever written is Robert Slade s *Guide to Computer Viruses* For those who think my judgment might just be a bit bent here Pamela Kane s *PC Security and Virus Protection Handbook* is a good overview for the MS-DOS arena For those who want to know what a specific virus does you can t do better than *Dr Solomon s Virus Encyclopedia* by Alan Solomon More rigorous academic treatments are provided by Ferbrache s *A Pathology of Computer Viruses* and Cohen s *A Short Course on Computer Viruses* ◆

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GREAT GAME FOR SPY FANS

• • By MARC SALTZMAN • •

Any game about espionage designed by William Colby former director of the CIA and Oleg Kalugin former major general of the KBG, is definitely worth a serious look.

Activision's latest and arguably greatest game (next to *Mechwarrior 2*) is coincidentally called *Spycraft The Great Game*. This multimillion dollar espionage adventure plunges you into the chilling life of a Central Intelligence Agency operative, where you actually consult with Colby and Kalugin to aid you along your way.

You are assigned to investigate the assassination of a Russian presidential candidate, but first comes some intense training at The Farm where you learn to use real high-tech equipment and techniques such as satellite photo manipulation, computer sketch-tracing tools and radio-signal interception.

Colby & Kalugin, two past masters of "the great game."

It is refreshing to play a game with full-motion video (FMV) and still have it feel like what you do as a player actually *matters* (the game has over 100 cinematic sequences but still doesn't feel like you're just clicking away at a prerecorded slide show).

The term is so overused that I am reluctant to even mutter it but this does indeed feel like an "interactive movie". The acting is executed well enough, the film footage is professionally shot and the game involves you the player to the point where you do indeed feel what it is like to be a post Cold War spy.

Going global

This game is also one of the first to integrate the World Wide Web into gameplay. Throughout the game you confer with your online databank which can link you to the real Internet. Here, you can access current information about your mission or can exchange hints and suggestions with other players of *Spycraft* from around the world!

I don't really have any complaints about *Spycraft* although I wasn't pleased about having to change my Windows 95 setup in order to play it. Still after getting involved in the game though I didn't seem to mind the minor tweaking.

Fans of games such as *Police Quest: SWAT* or *In The First Degree* will really enjoy this game with its great plot, tricky puzzles and easy-to-run interface.

You will definitely feel you got your money's worth when you see how much time and effort went into this product. And you in turn if cunning enough will get that same time and gratification out of *Spycraft* too. Don't forget to check out the Spycraft contest on the Activision Web site.

Marc Saltzman is the lead author on the book Internet Games Directory from Que/Lycos Press and hosts "Marc's Web Watch," a weekly Internet related radio show heard on 102.1 The Edge, in Toronto. ◆

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This CD gives you the universe

• • By MYLES WHITE • •

If you have a burgeoning space buff in the family or if you're simply curious about the General Theory of Relativity or the function of gluons Dorling Kindersley's Eyewitness Encyclopedia of Space and the Universe is an interactive multimedia CD-ROM for Windows (3.x or 95) that you're going to want.

Also in on the info packed CD-ROM the Encyclopedia includes DK's other publishing project the Pockets book of Space Facts for those who'd like to read along and get a little more depth in related subjects.

When you start *Space and the Universe* (optimized for 640 by 480 at 256 colours, but able to run quite well at a higher colour value) you're offered what appears to be a busy desk and virtually every object on it below it beside it and above it leads to somewhere else.

Kitchen sink, anyone?

On the front screen alone you get the following choices Race for Space Hardware Who's Who Activities Star Dome The Universe Solar System Explained The Planets Stars and Star Clusters Deep Space The Cosmos Technical Manual Cosmology 3D Models Internet Addresses Quiz Master Sky Watching, and History.

There's also a back tracker to take you to previous pages an alphabetical index an option picker (including the ability to copy and/or print many screens) a help module and if you have them installed shortcuts to loading three other programs in the DK Eyewitness series (*History of the World Encyclopedia of Nature* and *Encyclopedia of Science*).

Each of the main selections leads to a multiplicity of adventures and details about the universe around us. Culled at random you can learn about White Dwarf stars Black Holes Quarks gauge Bosons or the solid state theory vs the Big Bang.

Activities include landing a lunar module or assembling a rocket for launch. Three-dimensional models include rotating annotated animations of the Hubble Space Telescope the Mir space station and other bits of hardware.

Star buffs will appreciate the Star Dome where you're able to pinpoint any spot on earth and see what the night (or daytime) sky would look like now tomorrow or the equivalent date BC. Features include the ability to search for various stars and constellations as well as an option to label major features including distant galaxies.

If you want to know about galactic super strings or the Great Wall (no not the one in China) or you have a hankering to see close ups of the moons or rings of Jupiter (yes it has some!) or Miranda's deep canyons you won't be disappointed with *The Eyewitness Encyclopedia of Space and the Universe*.

The Eyewitness Encyclopedia of Space and the Universe from Dorling Kindersley $49-$59 (estimated street price). For more information contact Dorling Kindersley at 1-800-DKMM-575 (356-6575). ◆

INFO BOX

DeathKeep from SSI.
Win95 CD ROM $45.99-$49.99
System Requirements: 486 DX/66 MHz IBM PC or compatible; 8 MB RAM, Windows 95, uncompressed HD with 3 MB free; double speed CD-ROM drive; VGA Monitor; digital sound card; mouse.

Deathkeep

• • By MARC SALTZMAN • •

The evil Necromancer has awoken from his icy sleep and is determined to resurrect his long-lost powers within the Deathkeep. You are summoned by the Death of the Keep to stop him. The Necromancer however has littered Deathkeep with his creatures to bar your mission.

Strategic Simulations Inc. (SSI) brings us *DeathKeep* yet another official *Advanced Dungeons & Dragons* title following past successes *Ravenloft*, *Stone Prophet*, *Dark Sun: Wake of the Ravager* and *Thunderscape*. *DeathKeep*'s role-playing scenario could very well have served as a modest backbone for a fairly good D&D game but after an enjoyable introduction however there is little here to keep even the most patient gamer interested.

DeathKeep feels and plays like an outdated role-playing game (RPG) with graphics not even half as detailed as more memorable RPGs from years past such as the *Ultima Underworld* series or *Lands of Lore*. Don't get me wrong, I have played—and enjoyed—many a game where graphics have taken a backseat to intriguing dialogue rich character development or well thought-out maps but this game has little in such areas to praise.

Coming as it does from a company that has brought us such fantastic award-winning wargames as *Panzer General* or *Steel Panthers*, *DeathKeep*'s apparent lack of quality is surprising. I can't help but feel that this game may have been developed and completed years ago and shelved for some unknown reason.

There are a couple of successful points in *DeathKeep* that are worth mentioning. I found the music eerie and suitable for exploring dark underground passages with traps and monsters lurking around every corner. Also some of the 30 or so monsters you will run into are quite neat (and deadly) such as the Myconid (fungus people) with their spongy but deadly blows and poisonous gas emissions and the guardian Glass Golem (ironically built in the form of a stained-glass knight).

Short trip?

The automap feature is well designed useful and effective but I wondered if anyone would be playing the game long enough to need one.

We are finally seeing a resurgence of RPG games after a long dry spell with games like *Heroes of Might and Magic*, *Anvil of Dawn* and the much anticipated *Lands of Lore 2* (to be released in the fall). I hate to say it but if the average new gamer looked at the screen shots on the back of the *Deathkeep* box there is no way that cash would leave his or her pocket for this product. Unfortunately I don't feel that *DeathKeep* will even be a contender for hard-drive space for the regular RPG gamer either.

For you diehard D&D fans out there—just wait a while and I'm sure you'll see *DeathKeep* in a bargain bin in no time. ◆

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Toy Story

CD-ROM is full of fun and games

• • By DAVID ROSEN • •

If you haven't seen Disney's *Toy Story* put this newspaper down right now and head to your local video store! If you *have* seen the movie check out Disney's newest addition to its Animated Storybook family *Toy Story*.

This CD-ROM has lots of activities to keep kids busy such as the Claw Game and The Maze. In the Claw Game (set in the Pizza Planet) kids have to count and sort objects to deal with the infamous three-eyed Martians (see, we *told* you to see the film).

In The Maze game players help Woody and Buzz make their way through a maze of neighbourhood streets as they try to catch up to Andy's moving van. While being chased by Sid's dog Scud, kids have to avoid roadblocks and street lights along the way.

Neat surprises

In the Flashlight Screen the screen becomes black as the action enters Sid's room. The cursor becomes a flashlight and shines on the room finding different toys and neat surprises.

Designed for kids aged four to nine, this CD-ROM contains the same fabulous computer animations that brought *Toy Story* characters Woody and Buzz Lightyear to life, although the graphics are not quite as stunning as those found in the film given the limitations of the CD-ROM format.

Kids will hear many of the same voices from the movie. The CD is hosted by John Ratzenberger as the irreverent storyteller, Hamm. Other original characters include Don Rickles as Mr Potato Head, Annie Potts as Bo Peep and Jim Varney as Slinky Dog. ◆

INFO BOX

Toy Story Animated Storybook, from Disney Mac/Windows CD-ROM $40 (estimated street price) For more information, contact Disney Interactive at 1-800-900-9234

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Internet how-to video upbeat, but shallow

• • By JIM CAUGHRAN • •

"Why struggle through a book?" asks the blurb on the videotape box People learn in different ways and for those who missed all that has been written about the Internet, or who would rather watch than read, here's a television substitute

ABC's of the Internet starts with an 18-minute conversation between Anne Huiegard (who plays the "neophyte") and Frank Kilpatrick (the "expert") who describe what the Internet offers its history and how to access it. They quickly sail through vocabulary then list a number of sites and describe searching. With enthusiasm, they tell you how to get the news and weather television summaries or even the White House!

The conversation is followed by panels listing Web-site references and glossaries. In all the tape runs for 30 minutes. It comes with the usual CompuServe software and can be ordered by telephone or if you now know how to use the Internet, through their Web site

But television is not a deep medium Half an hour isn't enough to demonstrate or explain how to actually do anything If you want to know something the video may tell you which Web site to look at or it may refer you to a search engine

Frank and Anne stir your enthusiasm but don't really communicate a lot of knowledge For US$25 you get only a quick overview so it may be worthwhile to take the time to read a book after all

ABC's of the Internet from HomeTown Television, US$19 95 + US$4 95 shipping and handling.
For more information or to order write to 1280 Artesia Boulevard, #380 Hermosa Beach, CA 90354 call 1-800-887-4871 or visit http //www internetabc.com/ ◆

Karma good for go-it-alone gamers

• • By DAVID ROSEN • •

Karma Curse of the 12 Caves is a strategy game based on a series of ancient legends told about the Caves of Dun Huang. One such legend tells of a spring placed in the caves by Kuanyin the Buddhist Goddess of Mercy According to the legend the holy waters of this spring would cure any disease or infirmity

Unfortunately for the human population of the time a cruel demon once tried to destroy the holy well He was subdued and imprisoned beneath the spring but he remained strong and his evil knew no bounds Sometimes he would burst forth seize those who crossed his path and turn them into stone

Your job is to navigate the magical world of the 12 caves defeat the demon and bring the sacred waters of the spring to the world A multitude of puzzling challenges awaits you along the way *Karma* will appeal to you if you enjoy solving tricky mysteries without much hand-holding

In addition it's a definite advantage if you've had previous gaming experience You'll understand how programmers have hidden clues throughout the adventure and you'll enjoy the disk's enigmatic look and feel If you like strategy games and thinking puzzles you'll probably like *Karma*

If on the other hand you're the type who likes to peek at the answers you might want to think twice before buying The online hints are cryptic at best and the manual won't be much help either since it's designed to simplify the installation process only

This of course is the point If you want a shoot em up game or another similar adventure you might get frustrated with *Karma*

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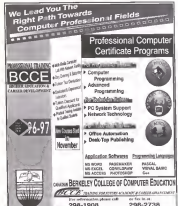
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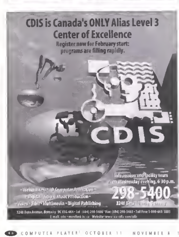
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Lots of Explorers

• • Compiled by KEVIN LINFIELD • •

License to protect

MidStream Inc has released of *007 for Win32* an innovative software protection scheme that allows users to password protect Win32 executable files The software modifies existing EXE files so that the protected program will first ask for a password and will not start unless the correct password is entered Download a test version from company s home pages at http //members aol com/mid/ or http:// ourworld.compuserve com/homepages/mid/

New Mac doctor arrives

McAfee the worlds leading vendor of anti-virus software has released *VirusScan 2 0* for the Macintosh with a suggested retail price of $88 McAfee provides anti-virus software for DOS Windows 3 x Windows 95 and NT OS/2 UNIX and the Macintosh platforms For more information check out http //www mcafee com/

Zippy new connections

GVC Corporation famous for their modems have introduced two new ISDN terminal adapters Purported to be more than four times as fast as the fastest V34 modems, these adapters are aimed at telecommuting LAN-to-LAN connectivity video conferencing, and Internet surfing Contact GVC at http://www gvc ca/ or call (905) 738-9300

Pack up your modem

Xircom Inc has introduced an International Modem Travel Kit This kit offers international business travellers a convenient solution for connecting PC card modems to over 160 phone systems worldwide The Modem Travel Kit has a suggested retail price of $179 Contact Xircom at http://www xircom com/

Net and TV. Together at last

Sony Electronics have announced that they will begin shipping their WebTV Internet Terminal next month. With the ability to hook up to any television users can surf the Net or, using their TV's picture-in-picture feature, they can access a site during a TV show or commercial

Printer in a briefcase

Apple Canada Inc. announced the availability of the Color StyleWriter 2200 a high-quality colour ink jet printer that s small and lightweight enough to fit in any standard briefcase and yet powerful enough to print laser-quality text and graphics The Color StyleWriter 2200 is designed to com-

continued on page 48

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Install *your own* RAM!

• • By LEE LESTER • •

Increasing your computer's memory has never been so cheap—or so easy. Even the fainthearted and those who have never looked inside a machine can do it.

Random Access Memory (RAM) today sells for only a third of what it was at the beginning of the year and installing it can take five minutes or less.

My Macintosh LC 475 and Pentium 90 both came with 8 MB of RAM. But it was the latter, with its memory-hungry Windows 95 operating system that really needed a boost. That came home to me recently when I received a graphics program. The maker recommended 16 MB to run it. And things are getting worse as software increasingly grows to humungous sizes and is required to do more and more.

So how do you go about increasing the memory in your machine?

From the Mac Warehouse on Eastern Avenue in Toronto I got an 8 MB SIMM (single in-line memory modual). The instructions that came with it were clear and concise: truly a "dummy's" guide to installing memory.

Avoid rugs circa 1973

First I disconnected all the cables from the LC 475. The instructions told me to wear a grounding strap to avoid electrostatic damage to the SIMMs. A Mac Warehouse salesman however said I could earth myself by touching the disconnected power supply to dispel any static.

"I've done hundreds of them without a grounding strap," he said. "Things only go wrong if you're shuffling around on shag carpet and building up a charge."

I took no chances. In my bathroom I laid the CPU down alongside the sink before pressing two catches at the rear of the machine and lifting off the cover. Holding on to the tap, and offering prayers and incantations, it took me a moment or two to locate the socket holding the 4 MB SIMM—the other 4 MB is on the logic board—which had to be removed. A minute later, I pushed aside a catch at each end of the socket and lifted it out.

Holding the replacement in one hand, again by its edges, while grasping the tap with the other, and making sure there was no resistance—a notch at one end ensures it can only be inserted one way—I gently eased in the new SIMM at an angle of 45 degrees until it would go no further. Slowly I lifted it until it was completely upright and it clicked into place.

Nine minutes after I started with the cover back on the CPU, I returned to my desk, plugged in the various cables and switched on. The familiar Mac tone and smiling face appeared. "About This Macintosh" on the Apple menu told me I now had a computer with 12 MB of memory.

The immediate result: everything appeared to work much faster and, of course, I can now have more and larger applications open at the same time.

PC complexity

I also received an 8 MB SIMM for my Pentium 90 from Kingston Technology Corp., the world's largest independent memory maker. Kingston normally deals with trade outlets, but does offer free phone support to anyone purchasing its products. The company sent me some pages telling me how to install the module. Although not quite as clear as the Mac Warehouse's, they were adequate.

The process should have been as simple with the Pentium machine but wasn't.

Four screws holding the cover of the CPU in place took only 40 seconds to remove. I then decided to test Kingston's support service. I phoned and explained I had never installed memory in my life. The technician who answered quickly told me how to identify the sockets.

He explained clearly how to insert the new module but pointed out that extra SIMMs often must be inserted in pairs. I already had a pair of 4 MB SIMMs in place, so I needed either two more of 4 MB each to give me 16 MB or another of 8 MB (to go with the one I had) for a total of 24 MB. Not Kingston's fault—a dealer would have explained just what I needed.

The slots were not as accessible in the mid-tower housing as those on the "pizza-box" LC 475 but the method of insertion was the same. Once I had acquired a second 8 MB SIMM it took only five minutes to install both modules.

When I switched on, however, I found I still had an 8 MB machine. Back to Kingston, where another patient technician suggested I reverse the placement of the 4 MB and 8 MB SIMMs. That done, I switched on again. This time there was no picture on my monitor and a constant beep-beep from the CPU. Switch off, take out the 4 MB SIMMs and switch on again. Yippee! I now had a 16 MB machine. Off again and once more insert the 4 MB SIMMs. Finally I had a 24 MB machine.

Louis the helpful technician gently suggested that maybe I hadn't pushed the SIMMs all the way home. The whole process took less than 20 minutes. Next time, it will take less than 5.

Stuff to remember

So anyone can insert more memory but before you buy there are some things to look out for:

- Is a single memory module enough or do

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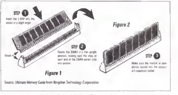
STEP 1
Insert the SIMM into the socket at a slight angle
Guard
STEP 2
Rotate the SIMM into the upright position, making sure the clips at each end of the SIMM socket click into position
STEP 3
Make sure the module is completely seated into the computer's expansion socket

Figure 1

Figure 2

Source: *Ultimate Memory Guide* from Kingston Technology Corporation

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Install your own RAM ...

continued from page 47

you need a pair?

- Open your CPU identify the slots and ascertain if their contacts are gold or silver You need a SIMM with the same type of contact although sockets with silver terminals can accept SIMMs with golden pins
- Get the same speed SIMM as those already installed If they're slower, they won't work as well faster and you pay for something you don t need
- Still nervous? Then get a grounding strap
- Go for SIMMs from a reputable manufacturer Some SIMMs are less than top quality They can affect performance or may even fail
- Make sure your dealer or the manufacturer provides support should you run into problems It's worth paying the extra fe bucks

Reading is fundamental

Lastly there s the excellent *Ultimate Memory Guide* which tells you all you'll ever need to know about memory It s available for free from Kingston Technology Corp You can write to them at 17600 Newhape St , Fountain Valley CA 92708 or call (714) 435-2600 Other information is available online at http // www kingston com/ ◆

Lots of explorers ...

continued from page 46

plement Apple Macintosh PowerBook computers, but can also be used on the desktop with most Macintosh and Power Macintosh models Apple Canada's home page on the World Wide Web is http //www apple ca/

Staying up to date

Globe Information Services (a division of the *Globe and Mail*) have produced an Internet news service aimed at the Canadian market PointCast Canada is a free service that displays up-to-the-minute news sports, weather and stock information directly to the computer screen when the user is connected to the Internet PointCast can be downloaded from http://www pointcast ca/

Lawyers all in a row

The Canadian Lawyer index (CLI) is an all new approach to lawyer referral services It allows the client to prescreen lawyers literally and figuratively on their home computers Most people are intimidated and reluctant to ask hard questions when seeking a lawyer but the CLI will at least help them to make the first step in equalizing the game It is new, it is growing, and it can be found at http //www akamail com/lawyers/

Virtual clinic

Medsconsult com Ltd have announced a virtual medical clinic on the Internet at http.//www mediconsult com/

Topics are broad and include infomation on AIDS allergies, arthritis asthma breast cancer, diabetes, heart disease hypertension pregnancy complications and prostate cancer ◆

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Merlin appears at last

By the time you read this Merlin (the next version of OS/2) should be available at your local software retailer As I write this article IBM had just announced that the Merlin launch is scheduled for Sept 25th in San Francisco *Byte* magazine claims that Merlin will have a suggested retail price of US$299 but as we all know street value is always significantly less than the manufacturer's suggested retail price I'm guessing that it will sell for about the same as Warp Connect currently does

With the release of Merlin it would appear that IBM has finally decided not to support Windows 95 applications under OS/2 Vice President John Thompson announced that OS/2 will be reconfigured to make it a better Java platform and that he feels that the industry's overwhelming interest in Java makes it the broader-based development environment not Windows

The beta files

Remember my OS/2 Software Suite shoot out back in the January 1996 issue? At that time *Lotus SmartSuite* owned the market with *StarOffice* a popular choice in Europe Well things might be looking up for North Americans because *StarOffice 3 1* has entered International beta.

"International beta," you ponder? Beta versions in English French Dutch Italian and Spanish were made available last summer Consisting of a word processor spreadsheet graphics and presentation package graphic image manipulator and charting utility this package is one I feel could quickly wrestle much of the market share from Lotus

Since the beta program expires this fall it would appear that a North American release is imminent Unfortunately I wish I could be as optimistic about *Lotus SmartSuite for OS/2 Word Pro for OS/2* should be released in 1996 but the chances of seeing an entire (or complete) *SmartSuite* package in the near future look dismal

OS/2 supporter unhappy with IBM

The OS/2 community has been saddened by the announcement that Will Zachmann former writer for both *OS/2 Professional* and *OS/2 Magazine* has publicly distanced himself from OS/2 He is extremely disappointed that IBM appears to be lacklustre in its support for OS/2

He claims the final straw came at the 1996 International Forum for IT Analysts here in Toronto IBM ignored OS/2 for the entire seminar and even upon direct questioning, IBM representatives danced around the OS/2 support issue Zachmann feels that if IBM supports Windows NT more than its own product then maybe he is supporting the wrong product too

Zachmann's now infamous quote " OS/2 (is) dead or a lame duck" Let's hope the release of Merlin cheered him up a little

Hot new OS/2 products

Hot off of their presentations at Comdex Canada in Toronto North York's own TrueSpectra have released their *Photo>Graphics* package Allowing you to create enhance and combine an unlimited number of digital images text and draw objects *Photo>Graphics* appears to be taking the OS/2 graphics world by storm

Bryan Sarty of House of Technology feels that this product will soon grace the number one spot on their top-seller list as demand so far has been astronomical.

TrueSpectra have had a busy summer giving demonstrations at various OS/2 user groups For more information check out their Web page at http://www.truespectra.com/

If you love the game *Minesweeper* hold onto your hat! A new version of *Minesweeper* with a twist has been released—in this case you can play in three dimensions The matrix size number of mines and difficulty are all configurable and all games are tried by the program and are claimed to be solvable without guessing

You can get a copy of this shareware program from ftp://ftp-os2.nmsu.edu/os2/games/MINE3D ZIP

Still programming in Pascal? Then you should definitely check out Virtual Pascal for OS/2 (VP/2) FPrint UK Ltd is now shipping version 1 10 of its native Pascal compiler Fully compatible with Borland Pascal version 7 VP/2 is now faster and easier to use than ever It features an integrated environment and debugger so you can write both 16-bit and 32-bit native OS/2 programs easily

VP/2 1 10 has a suggested retail price of US$245 but the upgrade is free to all version 1 0 owners For more information contact fPrint at http://www.fprint.co.uk/vpascal/

Jobs, jobs, jobs

An OS/2 Job moderated mailing list has been created to publish OS/2-related job opportunities via electronic mail Terry Hamilton president of the Toronto OS/2 user's group is the moderator and he claims that he personally will review all submissions to ensure they are appropriate for submission to members of the list If you would like to subscribe to the list send the following line to majordomo@teamos2.org (without the quotes) "subscribe os2jobs-l YOUR EMAIL-ADDRESS" If you have a position open for an OS/2 programmer or any other OS/2 position mail your submission to os2jobs-l@teamos2.org

Personal comments to Terry can be sent to tch@io.org

Freeware of the month

Miltiadis Mitrakes of Scotland has written an addictive little game of Chinese Checkers (currently at version 0 66) that features multiplayer (up to six users) and multimedia support Freely available you can download it from Hobbes at ftp://hobbes.nmsu.edu/os2/games/CC 2066 ZIP or contact the author at mmitraka@cs.strath.ac.uk

Kevin Linfield is a Toronto-based aerospace engineer and freelance writer. He can be reached via e-mail at klinfield@turfree.net ◆

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Mac Rant

David Rosen

Life imitates art

It's been said that life imitates art and that movies are a window onto life itself. Comedy drama romance adventure—it's all there on the big (and little) screen. Here's how this month's Mac news can be seen when compared to a few movies in recent history

Sleeping with the Enemy

Two months ago gentle readers, you might have caught MacRant's August column, entitled "Strange marriages." The column concentrated on the reasons why people—and companies—get married. The central theme of the piece was that an old Zen master had once explained the two reasons why people get married "the first reason is love, the second reason is the *lack* of love."

Well, I'd heard a crazy rumour at one of the many steamy MacWorld parties. It was *too* crazy to report last month however especially without confirmation. The rumour? Microsoft had set up a secret project to help Apple's third—party developers create software for the Mac platform!

A few years back, 20th Century Fox released a movie called *Sleeping with the Enemy.* The movie starred Julia Roberts as a newlywed who gradually discovered that her fairy—tale marriage was filled with deceit misery, and horrible brutality. But a marriage of even more bizarre circumstances has apparently been a very well kept secret in Silicon Valley for over a year. Microsoft has funded a program encouraging small Mac—based software developers to create Internet applications on the Apple platform

What's with this sudden turnaround in behaviour? According to industry observers, Microsoft's newfound financial and technical support of Apple's developer support program stands to benefit Microsoft in two ways. First, Microsoft looks better to the US government's antitrust lawyers—especially in an election year. Secondly and probably more to the point, having Apple on its side of the "Microsoft versus Netscape" battle can only help. Even though Microsoft is essentially dumping its *Internet Explorer* software by giving it away for free, the company still sees the need to help the game along. Cunning, eh?

The Truth about Cats and Dogs

Perhaps the real reason Microsoft is taking pity on Apple is due to Apple's new Canadian advertising campaign. Readers of this column know well MacRant's long—standing ridicule of Apple Canada's ads. You may have seen the latest salvo which features large billboards at downtown street corners. Besides the few words of text, they feature an Apple logo and the huge face of a sad—looking dog. The text reads "I have a business plan – a silent partner – and a Macintosh."

Now who's talking here? A human? The dog? I mean, the only living thing on the billboard is the dog. Perhaps the *dog* is supposed to be the silent partner? You can almost imagine the next set of ads featuring the dog behind a desk barking out "gee the cost of inflation is really making our numbers look rrrrroough."

So what can we learn from these new ads? That people who buy Macs get advice from dogs? The real question is, who thinks up this copy? And, more to the point, who *approves* it?

Crocodile Dundee

For years, Apple was criticized for not having any teeth in its licensing activities. Now hot on the heels of the successes of Power Computing and other clone makers comes news that Apple is considering punishing dealers who sell Macintosh clones as well as Apple's own Macs. This is already happening in Australia, where clone makers have reportedly made some inroads at Apple's expense

Apple Australia has threatened to cut rebates and cooperative marketing dollars from its authorized resellers who also stock clones. Agents—small firms selling into Apple's education market—will reportedly have their business agreements terminated if they are found to be offering clones. George Scalise Apple's chief administrative officer, explained in a recent press conference that the company's corporate group had not yet set a world-wide policy on the matter.

Dumb and Dumber

Steve Vamos is in the news again. A few months ago we reported that Vamos the managing director of Apple's Australia division, suggested the company should market Apple—branded PCs based on the Windows/Intel platform

"That was a dumb statement I made," admitted an apologetic Vamos—a many-year veteran of IBM—In a press conference a few weeks ago Vamos now says he fully supports the forthcoming Apple's implementation of the PowerPC architecture as the computing way of the future

Other Peoples' Money

Almost every MacHead has heard the stories MIS guys at large companies dumping Macs in favour of those "cheaper" PCs. It doesn't seem to matter to these Windows-lovers that every single independent consulting study has found that Macs are easier and less expensive to use. Well now comes the news that Mac users are fighting back.

Take for example, the plight of Mac users at NASA's Johnson Space Center. The battle began more that a year ago and pitted the center's chief information officer John Garman against nearly 3 000 Mac users. Garman reportedly wanted to standardize the centre on Windows 95 and embarked on a program to rid the place of any traces of non-Microsoft gear. Mac users rallied and fought back, citing that Windows had been adopted without the specialized life-cycle cost studies required by NASA and US federal regulations

The situation really exploded when a local Houston TV station heard about the estimated $2.9 million dollars required to convert the Mac users to the supposedly cheaper Windows-based computers. The TV segment also uncovered a Microsoft advertisement in which Garman was thanked *by name* for his assistance in beta testing the then soon-to-be-eleased Windows 95

If you have news of an opus worthy of Cecil B. deMille or just a grainy home video why not share it? Be clear concise, and fawning and send your tip to MacRant@aol.com Please note that due to the volume of mail, individual questions cannot be answered. ◆

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Distance learning: Friend or foe?

A recent lunch date turned into a heated debate on the merits or lack thereof of distance education My companion much to my chagrin failed to see the benefits of learning in front of a computer monitor She views the traditional in class exchange of knowledge as the one and only way to go I beg to differ

In its infancy distance education surfaced as little more than print versions of courses Participants received course outlines notes assignments and tests through the mail If they had questions they would write to the instructor or if long-distance charges were not prohibitive communicate by phone Each student was isolated from each other Procrastination in submitting assignments was common Of course isolation and disconnectedness happen even in the best of traditional classrooms

Interaction is key

Recent theories of education focus on the importance of learning as opposed to teaching Active student participants—as opposed to passive receivers of information—reap more benefits Many grade-school teachers are experts in involving their students in learning Unfortunately when those same students march through halls of higher learning the old role of teacher as sage on the stage is often resurrected

Here s where the power of the computer as a learning tool comes in Distance learning has always been dependent on the development of communications Today the personal computer is poised to impact distance learning like never before Here is a means of connecting teacher learner and community of learners in a totally flexible environment oblivious to place and time

But let s be cautious It s too easy to simply upload course syllabi tests and assignments and set yourself up as a purveyor of knowledge Sure it s great to have access to this stuff 24 hours a day from all corners of the globe But this is not the perfect model of distance learning

To my mind the best distance-learning courses reach out across the miles and respond to the learner It s not the content of the course that spells success—although this shouldn t be left by the wayside—but the ongoing interaction between faculty and participants

Learning philosophy

This type of interactive distant-learning experience is just beginning to surface I

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Distance learning: Friend or foe ...

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stumbled across an introductory philosophy course at the Oregon State University (http://www.ca.orst.edu/). A statement in the course syllabus reads: "You become a participant rather than a mere recipient of your education." Students are free to chart their own learning path from within a course framework. A graphical representation of a labyrinth helps students to keep visual tabs of their progress.

Vital to this course are ongoing discussions between students and course instructor. In fact, a rather lengthy document pinpoints necessary "Netiquette" techniques by which students must abide. Since communicating by computer neutralizes expression, the benefits of group dynamics and body language are absent. This often leads to misinterpretations. Participants must be conversant with skills in writing e-mail responses, respecting privacy and recognizing cultural differences in expression.

Here's another example. An online exercise for an immunology course at University of Toledo challenges students to work with the computer to simulate an actual experiment in equilibrium dialysis. I will spare you the details of this one but basically the student learns the necessary chemistry content, sets the simulated laboratory conditions, then runs the experiment. Feedback is provided along the way.

Leerning to change

No doubt, if distance learning is to make a dent in the stubbornly pervasive classical model of teaching, a paradigm shift is required by both learner and teacher. Students must be willing to jump in and get involved. They must participate in online chat areas and express opinions succinctly in e-mail. Time management skills are crucial as are concentration skills.

Recent research in distance learning indicates that the greater the teacher involvement, the greater the completion rate of distance courses. Just as in traditional classrooms, students need ongoing support and direction.

In fact, with little if any physical contact, many students require greater support to achieve. Audio and video teleconferences offer real-time alternatives to "in the flesh" visits. E-mail or electronic BBSs provide interaction and support by delayed time.

Teachers also need built-in support mechanisms. Alberta's Athabasca University assigns ten students to one mentor in the Master of Distance Education program. The University of British Columbia uses teleconferences with other students and tutors as well as a telephone tutoring system.

Effective distance-education instructors require numerous credentials. The best are able to identify a distant learner's characteristics, design and develop interactive courseware, adapt teaching strategies to deliver instruction at a distance, evaluate student achievement and be comfortable with ever-changing technology. A pretty tall order when educational dollars are short.

Is it worth it?

Distance learning encourages a new breed of learning facilitators to take up the cause and prove that educational benefits can be reaped. Benefits are plentiful. Adults acquire new skills without having to quit their jobs. At risk students gain a chance to beef up skills. Rural communities plug into international institutions of higher learning. Schools share resources and expertise amongst a virtual global staff-room.

A perfect example of this online sharing is the World Lecture Hall (http://www.utexas.edu/ world/lecture/) which contains an alphabetical listing of courses from accounting and business administration to travel industry management and zoology. Its international faculty submit course syllabi, assignments, lecture notes, exams, class calendars and multimedia textbooks. Students may enroll for credit or simply "audit" courses.

Distance education is not a new medium. It's been around in one form or another for years. What is new—and I might add extremely exciting—is the potential for interactivity that new technology presents. From the comfort of my own home I can exchange ideas with colleagues, hand in assignments, write an exam or receive tutoring from my instructor.

Don't get me wrong. I do not suggest that distance learning spells the end to live classroom encounters—well, not yet anyway. But the right combination of both produces results too enticing to ignore.

Sandra Mingail is a Toronto-based computer educator and consultant. Send comments to mingail@sdirect.com ◆

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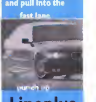

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Uplift for the bottom line?

Surprise, surprise sex sells At least, on the Internet it does While purveyors of other goods and services still ponder how to flog their wares via the Net Playboy says its site is profitable So many Netizens look in that the magazine can charge advertisers from US$1,250 to $20,250 for every 1 000 visitors who want a gander at the mag s nude Playmates

While purveyors of other goods and services still ponder how to flog their wares via the Net *Playboy* says its site is profitable So many Netizens look in that the magazine can charge advertisers from US$1,250 to $26,250 for every 1 000 visitors who want a gander at the mag s nude Playmates

Microsale

Microsoft Corp chairman Bill Gates and co-founder Paul Allen each plan to sell 500 000 shares they hold in the software giant Each is likely to receive about US$62 million But Gates will still hold 141 5 million shares and Allen 52 5 million Microsoft stock has risen 40 per cent this year

Another unloading exec is Patricia Stonesifer vice president of the interactive media division and former general manager of Microsoft Canada, who plans to sell 15 000 shares

Microsoft executives have windows—another plug for the OS?—in which they can sell shares after the company unveils its results says a company spokesman

Cold Java

A poll of Web developers and authors by the Georgia institute of Technology Graphics Visualisation and Usability Centre pours cold water on a software product commonly held to be one of the hottest items around. The survey found that only 17 per cent have programmed in Java, although 60 per cent expect to do so within 12 months. Only 15 per cent thought it will revolutionize the Web while almost three out of ten declared it had no value at all or only looks nice

iStar sees stars

Another one in the eye for Internet service provider iStar Internet it lost $20 4 million in its first year after going public as it laid out $17 million to acquire eight companies and build its cross-country infrastructure Last year iStar lost $840 000

The final quarter's loss of $10 4 million more than offset $7.6 million in revenue. Staff was cut to 245 from 370 as the year's revenue leaped to $19 4 million from $1 5 million

Anti-shareholder software required?

Directors of Symantec known for its anti-virus software probably wish they had a program to protect themselves against dissident shareholders

A California group in a class-action law suit, claims the company inflated the value of its shares It cites statements made by Symantec officials about *Norton Navigator Norton Anti Virus* and *Norton Utilities Windows 95* utility software the company's enterprise products, and its sales in Europe between June 9 1995 and January 8 1996 and claims financial statements for the first and second quarters of fiscal 1996 violated Generally Accepted Accounting Principles.

That, says the group pushed the shares up to US$33 25 enabling the company to

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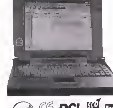

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Uplift for the bottom line ...

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acquire Toronto software maker Delrina for 15 million shares while company officials sold off 392,902 shares The group alleges the actions took place before the news got out that European sales and those of Windows 95 software were very weak and that, due to huge product returns Symantec would suffer flat revenue growth in the third quarter of 1996

Mac clones power up

Macintosh clone maker Power Computing s new models due out by the time this appears will put pressure on Apple s Performas Aimed at home and entertainment buyers the low-end PowerBase series will be housed in a midsize tower and a low-profile Mac LC-style case with 180 200 and 240 MHz 603e processors

They will also have 2 MB of video RAM (expandable to 4 MB) three standard PCI slots, 8X-speed CD-ROM drive, 1 2 GB IDE hard drive, 256 KB cache card, 16 MB of RAM and a 3-D accelerator board. Likely prices for the CPUs, with keyboard and mouse: US$1 495 (180 MHz), $1 795 (200 MHz) and $2,195 (240 MHz)

Alta Vista takes the high view

Digital Equipment Corp looks to be selling off a chunk of its AltaVista Internet Software subsidiary to cash in on the popularity of the company's Internet search service It has filed with the US Securities and Exchange Commission to sell up to 20 per cent of AltaVista.

AOL junks the junk mailers

America Online is blocking Internet sites that send mass junk-mail messages to its subscribers Junk mail it says, is the leading source of complaints from members.

It had tried working with operators to stop the unwanted mail, but several refused to do so or ignored its requests. AOL will provide members with the means to customize their e-mail and refuse unwanted communications. Among the sites blocked are answerme com, cyberpromo com honeys.com, netfree.com, and serviot.com

Shares escape Natscape

Netscape Communications chairman James Clark looks set to pocket US$76 5 million as he sells 9 per cent of his 1 75 million-share holding in the company be co-founded. The announcement came just before the launch of rival Microsoft s improved *Explorer* Internet browser.

But it was 12 months late for Clark. If he had sold the shares a year earlier, when Netscape went public, he would have received roughly $144 9 million for them His total holdings have declined in value from $1 61 billion to $761 4 million

Other Netscape executives selling shares include vice president/co-founder Marc Andreessen who intends to unload 100 000 of his 1 6 million James Barksdale president and CEO 200 000 of his 6.46 million and John David Barksdale his son who will sell 100 000 shares James Barksdale previously sold 1 28 million shares 17 per cent of his stake for some $81 million Andreessen sold 360 000 shares 18 per cent of his holding, for about $21 9 million.

Gary's chequemate

World chess champion Garry Kasparov stands to make US$1 1 million for a rematch against IBM s Deep Blue supercomputer

The computer can calculate hundreds of millions of moves per second, but was beaten 4-2 during their last match by Kasparov's subtlety and unpredictability against its pre-programming.

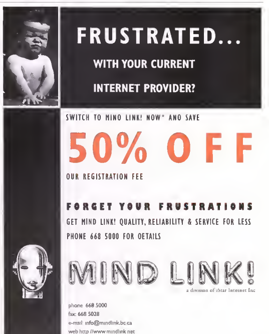
Now, say Big Blue programmers, Deep Blue is a better strategist and can adapt to Kasparov's style The rematch is proposed for New York next May

Researchers shatter Windows

Dataquest researchers predict Windows 95 shipments are 27 per cent lower than they had predicted The reason Windows 3 1 continues to sell well

Windows 95 shipments this year they say, will reach 45 7 million vs 18 5 million units in 1995 But driven by demand from large and medium companies Windows 3 1 shipments will only decline to 20 9 million units instead of the 9 5 million estimated earlier Last year's shipments 39 7 million units

Lee Lester may own shares in companies mentioned in this column ◆



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Looking for on the Net

If surfing the Net is keeping you holed up in front of your computer terminal you might want to consider getting out and doing something for your community If you want to volunteer your time or services finding the perfect match is becoming a lot easier In fact you might not even have to leave that terminal—at least during your search

• • By CHRISTOPHER GULY • •

Increasingly non-profit groups are seeking unpaid help through the Net Some of the 65 YMCA Canada offices are exploring Net-based volunteer recruitment, and the United Way of Canada is developing a central electronic clearinghouse for volunteer recruitment

Although only a half-dozen United Way chapters across Canada have their own Web site United Way spokesperson Jules Belanger says the agency hopes to be able to link all 121 offices in the near future

We're not going to recruit volunteers nationally but our site will be hot linked to local offices where you will be able to find out what their needs are he says

The same holds true for Volunteer Canada They too are developing a national Web site to link 200 volunteering affiliates nationwide Volunteer recruitment will remain at the local level while the national site will contain more general information such as volunteer statistics conference details articles and the results of research in the area of volunteering

Looking for a few good people

The Volunteer Canada site will also offer hot links to other national and international volunteer agencies Paddy Bowen executive director of Volunteer Canada expects cyber recruiting will soon replace the more conventional telephone-based and bulletin board methods

"I think you're going to see groups relying on the Internet for both pro-

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How to build a BBS: A STORY IN 4 PARTS

• • By ALAN THWAITS • •

OK, you've finally made the big decision: you're going to run your own BBS. You know from years of BBSing what works and what doesn't, you even know the difference between a Zmodem transfer and a base address. And, let's face it you're bound to do better than some of the lame boards you've seen out there in BBS Land.

But hold on, bucko. Building a good BBS takes more than brave words and a pure heart. It takes planning, grit and more than a little determination. So to help you on your way to being the Sysop of All Sysops, here's a brief tour that will put things in perspective.

First stop is the Drawing Board. Many a good BBS has gone the way of the dodo because good planning wasn't done. Running a BBS will have a large impact on your time and energy—not to mention your budget!—so research is a necessity.

What do you want to do?

First of all, consider what kind of board you want to run, and what its overall theme will be. Are you going to run a hobbyist board, a support board for your business, or an entrepreneurial board (i.e., one that's going to make money)? Each type of BBS operation will have different requirements on you and your equipment.

The next step is to state the theme of the board clearly. After all, if it isn't clear to you, it won't be clear to anyone else, will it? Will you be the comfortable neighbourhood BBS where friends meet friends? Or a complete source of shareware and freeware? Will you offer technical support to users of X Brand products? The choice is yours—but make the choice *now* not later.

Next, consider how much time and money you're willing to give the new venture. Get a pencil and paper (yes, Virginia, these tools are still used!), and write down how many hours you're going to give each week to system maintenance, management duties, and user handholding. Estimate your total hardware and software investment. Add one-time costs (such as a dedicated phone line or e-mail gateway service). Then calculate *total* one-time and monthly costs (time and money).

Still with us? Good. Now it's time to go to the Factory Floor where you'll actually put together your system. Assuming you've chosen (from your vast experience as a BBS user) appropriate software and a computer platform you're comfortable with, the pieces of the puzzle can now be put together.

Start having fun...now!

This is the fun part. Installing and setting up a BBS system is the true home of Murphy's Law so you'll probably learn more about IRQ conflicts, base addresses and the quirks of your modem than you ever dreamed possible. Go slowly, be kind to yourself and take breaks when frustration sets in.

The system is up and running and it works (you know because your most trusted friend has logged on a couple of times). You now need to spend some time in the Sales Office. With all due respect to Marc Andreessen of Netscape fame, if you build it, they won't *necessarily* come—BBSs need the light of day to flourish. So you become a salesperson.

Tell *everyone* about your new BBS—your friends and family (that's what they're there

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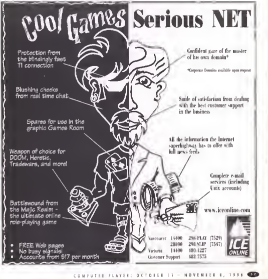
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How to build a BBS...

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for, right?) other sysops (a curious breed, these folks will actually spread the word about a new "competitor") and the people most likely to respond to your board's theme

Post a notice on the *Toronto Computer/BBS List* send press releases to local computer clubs post a message at your nearby computer store There are [illegible] everywhere—those I've listed are [illegible] examples

Be creative If you belong to a business networking group offer its members a free discussion forum on your system If your board is oriented towards families invite teens and younger kids to get online—or offer a teen the prestigious position of assistant sysop Seniors organizations online gamers church groups techies—they're all out there waiting for you!

It's alive!

And then good Sysop it's time to go back to the Laboratory If all goes well your board will attract (and keep) callers you'll deal successfully with the occasional hardware or software glitch and you'll think about enhancing the BBS Perhaps it'll be adding links to echo mail networks, or adding more online games or expanding your market

Whatever the new development it will mean going back through the four steps of planning your BBS Think of the process as an upward spiral—sure you'll be revisiting the steps you took before but each revisit will build on the wisdom you gained last time around And both you and your BBS will be better for the experience! ◆

Looking for help on the Net ...

continued from page 56

moting volunteerism and recruiting volunteers" she says

Some groups already have well defined Web pages

The Ontario March of Dimes site devotes a section to volunteering, which features a description of the organization's volunteer committees its befriending programs and fund-raising needs There's also an online Help-Wanted section

The Canadian Centre for Philanthropy site includes a section called How to Become an Imagine Community Partner Others include the Manitoba Hospice Foundation which contains information on how to become a volunteer for them and the Timmins Volunteer Centre in Northern Ontario which describes its mandate and advertises current volunteer openings

Although a standard volunteer Web recruitment strategy has not been developed—if that's even required, given the unique needs each group might have-some groups are using the Net trial as a way to explore other opportunities

For instance the folks at Volunteer Canada plan to monitor the number of visitors who access their site The idea says Bowen is to show potential corporate sponsors of the site the level of community interest

Youth movement?

Turning to the Net for some non-profit groups is also a way of getting younger volunteers—or donors Care Canada is poised to become the first in Canada to seek online donations

"One of the things we've found is our donor base tends to be older Canadians who are 45-plus," says Mary Lynn Lalonde who heads Care Canada's direct-mail unit "But we wanted to reach younger people through a medium they're more comfortable with" ◆

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Net freedom still under siege

• • By PAUL LIMA • •

"As the most participatory form of mass speech yet developed the Internet deserves the highest protection from governmental intrusion."

When a United States federal court declared unconstitutional the Communications Decency Act (CDA) a law that would have restricted freedom on the Internet, electronic fireworks were set off on Web sites across North America

"Cutting through the acronyms and argot that littered hearing testimony, the Internet may fairly be regarded as a never-ending worldwide conversation," Judge Stewart Dalzell wrote in his opinion. "The Government may not, through the CDA, interrupt that conversation. As the most participatory form of mass speech yet developed, the Internet deserves the highest protection from governmental intrusion."

In defence of their judgment, the judges also stated, "Communications over the Internet do not invade an individual's home or appear on one's computer screen unbidden."

Ironically the ruling of the American court is in sync with Canadian public opinion. a recent Anderson Consulting survey revealed that the vast majority of Canadians believe the government or other organizations should provided tools to let users filter material on the Internet, but leave it up to individuals to determine exactly what they will access there.

Hold the party hats

Even with the defeat of the CDA, Web-site celebrations may have been premature, as freedom of expression on the Internet is under siege from other governments organizations, Internet service providers (ISPs) and even Net users

While Canadians have not had to worry so far, about the government intervening in the dissemination of information on the Net, iStar Internet Inc Canada's largest ISP recently blocked access to 35 contentious newsgroups.

Margo Langford, corporate and regulatory counsel, told iStar staff by way of an e-memo that "pursuant to iStar Internet Inc's policy to prohibit use of the iStar network for illegal purposes, on the advice of legal counsel, certain newsgroups have been deleted as they contain material that contravenes the laws of Canada."

None of the material had been presented to the courts for judgment however, and there were no indications that the police would lay charges if iStar had not blocked access to the groups. The company refused to reveal a complete list of banned newsgroups, but the internal memo soon made its way to the Internet (surprise!) and iStar was accused of playing judge and jury

The situation is similar to the actions CompuServe took last December. The US-based company caused a major uproar around the world when it denied users access to over 200 newsgroups. The ban was made to comply with German threats of prosecution over access to images and information on the Internet. CompuServe has lifted the ban on all but four groups and now provides parents with software to limit the information children can download

Don't shoot the messenger

Until the CompuServe newsgroup ban ISPs had taken the line that they cannot control information users send over the Internet just as the telephone companies are not responsible for what a person says on the phone Actions like those taken by CompuServe and iStar weaken that claim German ISPs now monitor newsgroup postings for compliance with German laws and plans call for an Internet Content Task Force (ICTF) to cancel unwanted postings or bar selected newsgroups

Germany's minister for family affairs, Claudia Nolte, believes international standards may be required to prevent pornography and neo-Nazi material from appearing in cyberspace. Other governments—claiming to protect children, silence hate mongers, or counteract terrorists—are cracking down on Internet freedom A recent Human Rights Watch report, "Silencing the Net" claims that at least 20 countries have place restriction on the Internet. By way of example

- A French bill mandates ISPs to block access as so-called undesirable Internet sources including newsgroups and Web sites A government/industry body is working to define "undesirable"
- In many former Soviet Union countries Internet users must register their e-mail addresses with government agencies so anti-government propaganda can be monitored.
- Chinese and Singaporean ISPs register with authorities and the Internet, is regulated like any other broadcast medium.
- The government of Burma has restricted all telephone, fax, and Internet contact between Burmese and the world beyond.
- South Korea has warned citizens they should not access North Korean Web sites.
- In Vietnam, direct access to the Internet by individuals is banned.

Church chat—not!

The Church of Scientology has been accused of censoring the Internet as well Scientologists have been accused of spamming alt.religion.scientology with lengthy pro-Church messages in an attempt to disrupt online discussions about the Church. A report in *Now* an alternate newspaper in Toronto claimed up to 20 000 messages (over 50 000 megabytes of material) were posted over a nine-day period.

Just as governments, ISPs, and various organisations have been accused of playing judge and jury some Netizens have taken it upon themselves to enforce Netiquette standards that state messages should be posted to one or two newsgroups only They have let loose Cancelmoose a cyber robot or "bot" that looks for and cancels cross-posts But in the spirit of democracy that so many Net users cherish there are lively discussions on the Internet about these actions ◆

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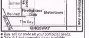

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一、前言

在上一期介紹了Internet上的E-Mail的一些基本的觀念後，收到許多讀者的迴響，其中也不乏已用E-Mail一段時間的用戶？

E-Mail很方便，但是如果出遠門，是不是就享受不到它的方便了呢？

我們知道每個人的E-Mail都是依附在每家ISP的下面，而收信需經過ISP？

但大部份的ISP(大型ISP例外)都只提供當地的撥接電話，只要一離開當地，E-Mail似乎就沒有一點用處了，

如果只是為了電話一下的出遠門，就去申請另一個ISP或是向收費較高的ISP申請帳號，好像也不是很好的作法！

本篇筆者準備要告訴大家，如何隨時隨地的收信，不管您人在哪裡？

二、何謂電子郵件

電子郵件(E-Mail)就是指某份以數位形式存在的訊息，能夠透過電腦電纜送到收件者的手中。

在電腦網路上的電子郵件與我們日常生活中的普通郵件幾乎是一樣的，當信件無法寄達時，會被退回原寄件人。但此退信的動作，不會像一般郵局可能耗費數日，頂多只要幾個小時就能確定信件有沒有寄達(沒有被退件，就表示已經寄達)。

而在一般的郵局的租用信箱來說，您必須要到郵局去開信箱取信，如果出遠門，就更不可能取到信，也不知道有沒有人寄信給您？

當您申請了任何一個ISP的帳號後，您的E-Mail Address就是由該ISP所發出，該ISP就等於是現實社會的郵局一般，而您在該ISP郵局租用了一個電子信箱，您的E-Mail位址就是該信箱的編號。

這種郵件一定會有固定的收件人，且您所能送信的主機(Host)必須事先申請，申請完成後，您就會有一個自己的網路郵遞位址(一般人所指的E-Mail就是指這個)。這種信件要送，正常情況下只透過兩部郵件主機(Mail Server)，也就是您這端的郵件主機及收信人端的郵件主機(在少數例外，有可能會經過第三部郵件主機代為某一封信)。

在早期的E-Mail要送都是使用SMTP(Simple Mail Transfer Protocol)來傳送郵件，但是近來，由於PC及相關軟體的流行，則大部份都是改用POP3(Post Office Protocol version3)來傳送郵件。

所以，在大部份的電件軟體的SMTP Server的地址您可以不必寫，因為您可能用不到了。)

不管是SMTP或POP3都是屬於沒有安全性控管的通訊協定(Protocol)，因此要騙過郵件主機是非常容易的，要偽造別人的電子郵件也是非常的簡單。

三、如何跨國送收信

任何一種電件軟體(例如Eudora或CC Mail)都需要事先在軟體中設定您的POP3 Account(E-Mail Address)或POP3 Server的Address。

所以不管您人在哪裡，只需將您的電件軟體的設定設成您的郵件主機的位址，您就能讀到任何人寄給您的E-Mail了！

寫到這裡，有些讀者可能還是丈二金剛摸不著頭腦？

舉個例吧(假設情況)

Jim在溫哥華的某台灣電腦顧問公司(某家ISP)申請了一個Internet的帳號。也就因為這樣，他也擁有了一個由台灣電腦顧問公司所發的E-Mail位址。

有一天，Jim到美國去找朋友玩，他的朋友剛好也有玩Internet，於是Jim就用他朋友的Internet帳戶連入溫哥華當地的ISP(當然是用他朋友的電腦囉)。

接著把他朋友電腦裡的Eudora(一種郵件處理程式)中有關POP3 Address的設定改成自己的，接著命令Eudora去檢查信件，就能立刻取回遠在加拿大溫哥華當地ISP電件主機中關於Jim的所有電子郵件了。

當然，接完信件後，Jim必須把他朋友的Eudora設定恢復成原狀(或由他朋友自己設回)。否則，以後Jim的信可能就要由他朋友代收了。)

懂了嗎？

以筆者為例，我的E-Mail Address是jim@iceonline.com，所以我只需改郵件軟體中有jim@iceonline.com的設定就行了。一般較聰明的郵件軟體也可以不需要輸入POP3 Server的Address，如果您輸入了也無妨？

不過，如果您有輸入了POP3 Server的Address，在您改設定時，也要記得改此位址哦！

如果您只想看看自己的信，但不想把信件要到您朋友的電腦裡，

一般的郵件處理軟體中，都會有一項把郵件留在郵件主機的功能，您只要把此項打開，信就不會被讀回來了，可以等您回到住處再讀回來喔。

四、如何假造別人的電子郵件

要假造別人的電子郵件在筆者看來，真是太容易了(當然，筆者不會這麼無聊)。

所以，當您很愉快的在讀Internet所帶給您帶來的方便之餘，請別忘了，Internet上的所有一切，可能都是假的？

一定有人會反問筆者，寫E-Mail不是會有密碼嗎？別人又不知道自己的密碼，如何偽造電子郵件？

有此疑問的人，請寫一封信給筆者，筆者可以馬上製造一封以您E-Mail Address所發出的電子郵件給您。：Q

筆者提醒各位一件事，那就是郵件軟體與郵件主機間的信件傳送，是完全不需要任何密碼的！

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知道了嗎?

筆者不想講太明(每篇上篇乎已經講出來了)，以免有人告我製造Internet的不安動盪……！

五、結語

想自己建一個屬於自己的郵件主機嗎?

到各大FTP Site找找吧!

想試試看它的E-Mail通不通嗎?

作者：林啓清
簡介：

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☐ Systems integrator/software consulting
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☐ Other third party and allied service firms

The systems my organization integrates or resells are based on the following: (check all that apply)
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What is the number of employees at this location? (check one only)
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All questions must be answered. Incomplete cards will not be processed. The publisher reserves the right to determine qualification.

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MacShrink™
by David Rosen

Looking for an appendable clipboard

Q Dear Doctor Reading the letter in a previous issue of *TC!* about a clipboard extension for OS/2 reminded me that I have for a long time wanted one for the Macintosh that would do the same thing Specifically I would like a "clipboard append" feature for my Mac. Do you know of any shareware program that does this? I know there is one that allows multiple clipboards but unfortunately each of its separate pages only accepts overwrites

Thanks, Jack from York University

A *Jack As you probably know many commercial Mac products effectively have this feature built in or usable with a little imagination Graphic-design products—such as* Adobe Photoshop *for example—can be used in a way that give you many different levels of Undo. These ways include working in separate layers for each of your ideas and then selectively applying these layers in your work*

The only third-party product of which the Doctor is aware that adds levels of Undo on a system wide level is MultiClip Pro *by Olduvai Corp. The company can be reached at 1-800-548-5151 or (305) 670-1112 for orders outside North America. The company can also be reached on the Web (http://www.shrink.net/~olduvai/). The MSRP of* MultiClip *is US$149 but it's occasionally on sale—ask!*

The Doctor

Legal resolution

Q Dear Doctor When I go to print a colour page on my new LaserWriter 12/600 something weird happens. Documents seem to print okay in letter size mode but when I try to print on legal size paper my documents seem to lose resolution What's going on?

Signed Nancy in Montreal

A *Dear Nancy Well it's the printer's fault But before we start blaming the technology we should look at how colour printers construct all those great colours.*

Most colour printers use a technique called a CMYK colour model to represent a particular colour on a printed page. In case you're wondering CMYK is an acronym for Cyan (most of us call this colour turquoise) Magenta (light reddish-purple) Yellow and black (don't ask me why they chose K to represent black) [From the Free Online Dictionary of Computing (http://wfn-shop.princeton.edu/cgi-bin/foldoc/) The K stands for key or black so as not to cause confusion with the B (blue) in RGB —copy ed.]

By mixing different amounts of these four colours a printer is able to reproduce—with varying degrees of success—just about every colour you can imagine. By the way commercial printers such as the folks who print this newspaper use the same CMYK colour model to create their magic

When you bought your Color LaserWriter 12/600 PS, it came standard with 12 megabytes of RAM This is more than enough to generate sufficient coloured dots (or pixels) to construct a full colour letter-size page The problem arises when printing legal-sized jobs As I've mentioned the printer has only 12 MB of RAM This means it doesn't have sufficient memory to "remember" enough information to print the larger page using all four colours It uses a compression trick to do the best job it can in less-than-optimum conditions.

According to Apple the Color LaserWriter uses a higher compression technique for printing on legal-size paper using only three of the four available colours (cyan magenta and yellow) As a result of this increased compression technique very complex pages (such as ones containing many graphics objects) may show missing pixels in fine lines or small text In addition the same pages can show jaggies (edges with a low resolution stepped appearance) and even colour changes.

The solution for your problem is to add more RAM To improve the image quality of such pages you can increase the printer's memory With additional printer memory the Color LaserWriter 12/600 PS can achieve the same quality with legal size pages as you've come to expect when printing letter-size or A4-size (the European standard) documents using all four colours.

MacShrink FactSheets are back

The Doctor now makes house calls Well perhaps not in person but hey what do you want for free. Back by popular demand the MacShrink FactSheets now feature individual articles on how to prevent (and cure) system crashes start-up problems printing problems SCSI hassles and much more

A complete list of FactSheets will be printed in next month's column and all are as usual free for the asking (and a self addressed, stamped business-size envelope.)

You can reach MacShrink directly by sending your message to MacShrink@aol.com
Your last name and e-mail address will not be printed. Please note that due to the volume of mail individual questions cannot be answered. All questions become the property of MacShrink™ and David Rosen ◆

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Drawing a blank

Q In the June [illegible] mentioned that there is a screensaver built into OS/2. Where do I find this?

Brian

A *Kevin Linfield responds: To set up the built-in screensaver you must enable the "Lockup" feature of the WorkPlace Shell.*

Click the second mouse button on the Desktop and select Settings (or "Properties" if you are running Merlin) and then turn to the "Lockup" page. Select AutoLock after (say) ten minutes and select the Full Screen and AutoDim feature. Under OS/2 Warp or earlier you must also select a password. An easy one to remember is to use a single space or any one character. With Merlin you can set it up so that no password is needed.

Now, after ten minutes of no mouse or keyboard activity your Desktop will go blank.

Looking for a fix

Q You have mentioned Fixpaks many times in your OS/2 Ready column. What are they anyhow? How do I know if I should use one? And is there a big list somewhere that says which pack fixes which problem? Thanks

Isaac

A *Kevin Linfield responds: A Fixpak is a collection of updates for OS/2. Fixpaks exist for the operating system itself or for OS/2 applications such as IBM Works (which comes on OS/2 Warp's BonusPak). As of my writing this the latest public Fixpak for Warp was Fixpak 22 (they are not released in consecutive order; the one released before 22 was Fixpak 17). It is available from the Internet FTP site hobbes.nmsu.edu or IBM's Web site.*

You can get information on Fixpaks from the master update list at http://www.cheyteamos2.org/masterupdate.html

Be warned that IBM (and I) recommend that you install a Fixpak only if you are having problems with OS/2. You can download a Fixpak's README and determine if it will fix any problems you are having with OS/2.

With the release of Merlin (the next version of OS/2) you may want to put off installing any fixes for the time being.

When there's no CD ROM

Q I'm trying to install Warp Connect on several CD-ROM-less PCs at work using Micro Solutions Backpack external parallel port CD-ROM drive. What is the easiest way to do this? I welcome any advice/suggestions. Thanks in advance

Scott

A *Kevin Linfield responds: Talk about perfect timing! When I received my beta copy of OS/2 Merlin, I wanted to install it on my notebook. Unfortunately I do not have a CD-ROM for it and I did not relish the thought of creating 60 or so diskettes. Lucky for me I was able to borrow a Micro Solutions CD-ROM and with it I had no trouble installing Merlin on my notebook.*

First off make sure you have the latest device driver. Go to MicroSolutions's Web site (http://www.micro-solutions.com/) and get the proper driver for your Backpack model. Two drivers exist: one for the single and double speed, and one for the triple and quadruple speed.

Copy the device driver to a copy of disk 1 and add the statement "BASEDEV=BPCDOS2.ADD". If you need to make room on the disk, delete one of the other CD-ROM device drivers and make sure you REM out the corresponding line in your CONFIG.SYS. Also check to make sure your CONFIG.SYS contains the lines "IFS=CDFS.IFS" and "DEVICE=OS2CDROM.DMD".

You then should be able to boot from the Installation disk and then Disk 1 of your Warp Connect CD-ROM.

Note however that the installation program will not copy this driver over to your hard drive so when you are asked to reboot to continue the install you must reboot from the floppy to a command prompt and copy the device driver from disk 1 and add the driver to your CONFIG.SYS. ●

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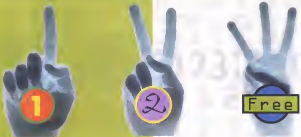

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